

10/5/228

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SEQUENCE LISTING

<110> Yorkshire Cancer Research

<120> Replication Protein

<130> SW/P101151WO

<140> PCT/GB03/05334

<141> 2003-12-05

<160> 73

<170> PatentIn version 3.1

<210> 1

<211> 5

<212> PRT

<213> Homo sapiens

<400> 1

Asp Ser Ser Ser Gln
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<210> 2

<211> 24

<212> DNA

<213> Homo sapiens

<400> 2

gttgaggagg aactctgcaa gcag

24

<210> 3

<211> 8

<212> PRT

<213> Homo sapiens

<400> 3

Val Glu Glu Glu Leu Cys Lys Gln
1 5

<210> 4

<211> 78

<212> DNA

<213> Homo sapiens

<400> 4

gccacccaca ccacgaagag atgttgc ccacgcca gtgcagggt ggagcacagc 60

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<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 6

tcttgatt gggggcgccg gaagaggggg tt 32

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<211> 30
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aagcagacac aggccccgga tcggctgcct

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<210> 8
<211> 30
<212> DNA
<213> Artificial Sequence

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aggcagccga tccggggcct gtgtctgctt

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aagcacagtc acaggagcag acctgtctc

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<210> 10
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<212> DNA
<213> Artificial Sequence

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<210> 11

<211> 29

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<213> Artificial Sequence

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<400> 11
aatctgtcac aagttctacg acctgtctc

<210> 12

<211> 29

<212> DNA

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aatcgttagaa cttgtgacag acctgtctc

<210> 13

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<400> 13
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<211> 29
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aaagaagaag aatccttgcg acctgtctc

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<220>
<223> Primer
<400> 15
aatctgcagc agttcttcc ccctgtctc

<210> 16
<211> 29
<212> DNA
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<220>
<223> Primer
<400> 16
aaggaaaga actgctgcag acctgtctc

<210> 17
<211> 18
<212> DNA
<213> Artificial Sequence

<220>

<223> Primer

<400> 17

cagtccac cacaggcc

18

<210> 18

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Primer

<400> 18

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<210> 19

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<213> Artificial Sequence

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<223> Primer

<400> 19

acacagacct ctccagagca cttag

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<211> 19

<212> DNA

<213> Artificial Sequence

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<223> Primer

<400> 20

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<223> Primer

<400> 21

tccttggcga tgcctctgg gcagg

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<211> 25

<212> DNA

<213> Artificial Sequence

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<223> Primer

<400> 22

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<210> 23

<211> 25

<212> DNA

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<223> Primer

<400> 23

cgtggggcg acttgagcgt tgagg

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<210> 24

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 24
gatgccaggg gtagggcg ccggg 25

<210> 25

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 25
tccgagccct tccactcctc tctgg 25

<210> 26

<211> 845

<212> PRT

<213> Mouse

<400> 26

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Gln Gln Leu Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln Gln Gln
20 25 30

Gln Gln Ile Leu Gln Leu Gln Gln Leu Leu Gln Gln Ser Pro Pro Gln
35 40 45

Ala Ser Leu Ser Ile Pro Val Ser Arg Gly Leu Pro Gln Gln Ser Ser
50 55 60

Pro Gln Gln Leu Leu Ser Leu Gln Gly Leu His Ser Thr Ser Leu Leu
65 70 75 80

Asn Gly Pro Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly
85 90 95

Leu Asp Gln Phe Ala Met Pro Pro Ala Thr Tyr Asp Gly Ala Ser Leu
100 105 110

Thr Met Pro Thr Ala Thr Leu Gly Asn Leu Arg Ala Phe Asn Val Thr
115 120 125

Ala Pro Ser Leu Ala Ala Pro Ser Leu Thr Pro Pro Gln Met Val Thr
130 135 140

Pro Asn Leu Gln Gln Phe Phe Pro Gln Ala Thr Arg Gln Ser Leu Leu
145 150 155 160

Gly Pro Pro Pro Val Gly Val Pro Ile Asn Pro Ser Gln Leu Asn His
165 170 175

Ser Gly Arg Asn Thr Gln Lys Gln Ala Arg Thr Pro Ser Ser Thr Thr
180 185 190

Pro Asn Arg Lys Asp Ser Ser Ser Gln Thr Val Pro Leu Glu Asp Arg
195 200 205

Glu Asp Pro Thr Glu Gly Ser Glu Glu Ala Thr Glu Leu Gln Met Asp
210 215 220

Thr Cys Glu Asp Gln Asp Ser Leu Val Gly Pro Asp Ser Met Leu Ser
225 230 235 240

Glu Pro Gln Val Pro Glu Pro Glu Pro Phe Glu Thr Leu Glu Pro Pro
245 250 255

Ala Lys Arg Cys Arg Ser Ser Glu Glu Ser Thr Glu Lys Gly Pro Thr
260 265 270

Gly Gln Pro Gln Ala Arg Val Gln Pro Gln Thr Gln Met Thr Ala Pro
275 280 285

Lys Gln Thr Gln Thr Pro Asp Arg Leu Pro Glu Pro Pro Glu Val Gln
290 295 300

Met Leu Pro Arg Ile Gln Pro Gln Ala Leu Gln Ile Gln Thr Gln Pro
305 310 315 320

Lys Leu Leu Arg Gln Ala Gln Thr Gln Thr Ser Pro Glu His Leu Ala
325 330 335

Pro Gln Gln Asp Gln Val Glu Pro Gln Val Pro Ser Gln Pro Pro Trp
340 345 350

Gln Leu Gln Pro Arg Glu Thr Asp Pro Pro Asn Gln Ala Gln Ala Gln
355 360 365

Thr Gln Pro Gln Pro Leu Trp Gln Ala Gln Ser Gln Lys Gln Ala Gln
370 375 380

Thr Gln Ala His Pro Gln Val Pro Thr Gln Ala Gln Ser Gln Glu Gln
385 390 395 400

Thr Ser Glu Lys Thr Gln Asp Gln Pro Gln Thr Trp Pro Gln Gly Ser
405 410 415

Val Pro Pro Pro Glu Gln Ala Ser Gly Pro Ala Cys Ala Thr Glu Pro
420 425 430

Gln Leu Ser Ser His Ala Ala Glu Ala Gly Ser Asp Pro Asp Lys Ala
435 440 445

Leu Pro Glu Pro Val Ser Ala Gln Ser Ser Glu Asp Arg Ser Arg Glu
450 455 460

Ala Ser Ala Gly Gly Leu Asp Leu Gly Glu Cys Glu Lys Arg Ala Gly
465 470 475 480

Glu Met Leu Gly Met Trp Gly Ala Gly Ser Ser Leu Lys Val Thr Ile
485 490 495

Leu Gln Ser Ser Asn Ser Arg Ala Phe Asn Thr Thr Pro Leu Thr Ser
500 505 510

Gly Pro Arg Pro Gly Asp Ser Thr Ser Ala Thr Pro Ala Ile Ala Ser
515 520 525

Thr Pro Ser Lys Gln Ser Leu Gln Phe Phe Cys Tyr Ile Cys Lys Ala
530 535 540

Ser Ser Ser Ser Gln Gln Glu Phe Gln Asp His Met Ser Glu Ala Gln
545 550 555 560

His Gln Gln Arg Leu Gly Glu Ile Gln His Ser Ser Gln Thr Cys Leu
565 570 575

Leu Ser Leu Leu Pro Met Pro Arg Asp Ile Leu Glu Lys Glu Ala Glu
580 585 590

Asp Pro Pro Pro Lys Arg Trp Cys Asn Thr Cys Gln Val Tyr Tyr Val
595 600 605

Gly Asp Leu Ile Gln His Arg Arg Thr Gln Glu His Lys Val Ala Lys
610 615 620

Gln Ser Leu Arg Pro Phe Cys Thr Ile Cys Asn Arg Tyr Phe Lys Thr
625 630 635 640

Pro Arg Lys Phe Val Glu His Val Lys Ser Gln Gly His Lys Asp Lys
645 650 655

Ala Gln Glu Leu Lys Thr Leu Glu Lys Glu Thr Gly Ser Pro Asp Glu
660 665 670

Asp His Phe Ile Thr Val Asp Ala Val Gly Cys Phe Glu Ser Gly Gln
675 680 685

Glu Glu Asp Glu Asp Asp Asp Glu Glu Glu Glu Glu Gly Glu Ile
690 695 700

Glu Ala Glu Glu Glu Phe Cys Lys Gln Val Lys Pro Arg Glu Thr Ser
705 710 715 720

Ser Glu Gln Gly Lys Gly Ser Glu Thr Tyr Asn Pro Asn Thr Ala Tyr
725 730 735

Gly Glu Asp Phe Leu Val Pro Val Met Gly Tyr Val Cys Gln Ile Cys
740 745 750

His Lys Phe Tyr Asp Ser Asn Ser Glu Leu Arg Leu Ser His Cys Lys
755 760 765

Ser Leu Ala His Phe Glu Asn Leu Gln Lys Tyr Lys Ala Lys Asn Pro
770 775 780

Ser Pro Pro Pro Thr Arg Pro Val Ser Arg Lys Cys Ala Ile Asn Ala
785 790 795 800

Arg Asn Ala Leu Thr Ala Leu Phe Thr Ser Ser His Gln Pro Ser Pro
805 810 815

Gln Asp Thr Val Lys Met Pro Ser Lys Val Lys Pro Gly Ser Pro Gly
820 825 830

Leu Pro Pro Pro Leu Arg Arg Ser Thr Arg Leu Lys Thr
835 840 845

<210> 27

<211> 716

<212> PRT

<213> Mouse

<400> 27

Ser Thr Ser Leu Leu Asn Gly Pro Met Leu Gln Arg Ala Leu Leu Leu
1 5 10 15

Gln Gln Leu Gln Gly Leu Asp Gln Phe Ala Met Pro Pro Ala Thr Tyr
20 25 30

Asp Gly Ala Ser Leu Thr Met Pro Thr Ala Thr Leu Gly Asn Leu Arg
35 40 45

Ala Phe Asn Val Thr Ala Pro Ser Leu Ala Ala Pro Ser Leu Thr Pro
50 55 60

Pro Gln Met Val Thr Pro Asn Leu Gln Gln Phe Phe Pro Gln Ala Thr
65 70 75 80

Arg Gln Ser Leu Leu Gly Pro Pro Pro Val Gly Val Pro Ile Asn Pro
85 90 95

Ser Gln Leu Asn His Ser Gly Arg Asn Thr Gln Lys Gln Ala Arg Thr
100 105 110

Pro Ser Ser Thr Thr Pro Asn Arg Lys Thr Val Pro Leu Glu Asp Arg
115 120 125

Glu Asp Pro Thr Glu Gly Ser Glu Glu Ala Thr Glu Leu Gln Met Asp
130 135 140

Thr Cys Glu Asp Gln Asp Ser Leu Val Gly Pro Asp Ser Met Leu Ser
145 150 155 160

Glu Pro Gln Val Pro Glu Pro Glu Pro Phe Glu Thr Leu Glu Pro Pro
165 170 175

Ala Lys Arg Cys Arg Ser Ser Glu Glu Ser Thr Glu Lys Gly Pro Thr
180 185 190

Gly Gln Pro Gln Ala Arg Val Gln Pro Gln Thr Gln Met Thr Ala Pro
195 200 205

Lys Gln Thr Gln Thr Pro Asp Arg Leu Pro Glu Pro Pro Glu Val Gln
210 215 220

Met Leu Pro Arg Ile Gln Pro Gln Ala Leu Gln Ile Gln Thr Gln Pro
225 230 235 240

Lys Leu Leu Arg Gln Ala Gln Thr Gln Thr Ser Pro Glu His Leu Ala
245 250 255

Pro Gln Gln Asp Gln Val Pro Thr Gln Ala Gln Ser Gln Glu Gln Thr
260 265 270

Ser Glu Lys Thr Gln Asp Gln Pro Gln Thr Trp Pro Gln Gly Ser Val
275 280 285

Pro Pro Pro Glu Gln Ala Ser Gly Pro Ala Cys Ala Thr Glu Pro Gln
290 295 300

Leu Ser Ser His Ala Ala Glu Ala Gly Ser Asp Pro Asp Lys Ala Leu
305 310 315 320

Pro Glu Pro Val Ser Ala Gln Ser Ser Glu Asp Arg Ser Arg Glu Ala
325 330 335

Ser Ala Gly Gly Leu Asp Leu Gly Glu Cys Glu Lys Arg Ala Gly Glu
340 345 350

Met Leu Gly Met Trp Gly Ala Gly Ser Ser Leu Lys Val Thr Ile Leu
355 360 365

Gln Ser Ser Asn Ser Arg Ala Phe Asn Thr Thr Pro Leu Thr Ser Gly
370 375 380

Pro Arg Pro Gly Asp Ser Thr Ser Ala Thr Pro Ala Ile Ala Ser Thr
385 390 395 400

Pro Ser Lys Gln Ser Leu Gln Phe Phe Cys Tyr Ile Cys Lys Ala Ser
405 410 415

Ser Ser Ser Gln Gln Glu Phe Gln Asp His Met Ser Gln Ala Gln His
420 425 430

Gln Gln Arg Leu Gly Glu Ile Gln His Ser Ser Gln Thr Cys Leu Leu
435 440 445

Ser Leu Leu Pro Met Pro Arg Asp Ile Leu Glu Lys Glu Ala Glu Asp
450 455 460

Pro Pro Pro Lys Arg Trp Cys Asn Thr Cys Gln Val Tyr Tyr Val Gly
465 470 475 480

Asp Leu Ile Gln His Arg Arg Thr Gln Glu His Lys Val Ala Lys Gln
485 490 495

Ser Leu Arg Pro Phe Cys Thr Ile Cys Asn Arg Tyr Phe Lys Thr Pro
500 505 510

Arg Lys Phe Val Glu His Val Lys Ser Gln Gly His Lys Asp Lys Ala
515 520 525

Gln Glu Leu Lys Thr Leu Glu Lys Glu Thr Gly Ser Pro Asp Glu Asp
530 535 540

His Phe Ile Thr Val Asp Ala Val Gly Cys Phe Glu Ser Gly Gln Glu
545 550 555 560

Glu Asp Glu Asp Asp Asp Glu Glu Glu Glu Glu Gly Glu Ile Glu
565 570 575

Ala Glu Glu Glu Phe Cys Lys Gln Val Lys Pro Arg Glu Thr Ser Ser
580 585 590

Glu Gln Gly Lys Gly Ser Glu Thr Tyr Asn Pro Asn Thr Ala Tyr Gly
595 600 605

Glu Asp Phe Leu Val Pro Val Met Gly Tyr Val Cys Gln Ile Cys His
610 615 620

Lys Phe Tyr Asp Ser Asn Ser Glu Leu Arg Leu Ser His Cys Lys Ser
625 630 635 640

Leu Ala His Phe Glu Asn Leu Gln Lys Tyr Lys Ala Lys Asn Pro Ser
645 650 655

Pro Pro Pro Thr Arg Pro Val Ser Arg Lys Cys Ala Ile Asn Ala Arg
660 665 670

Asn Ala Leu Thr Ala Leu Phe Thr Ser Ser His Gln Pro Ser Pro Gln
675 680 685

Asp Thr Val Lys Met Pro Ser Lys Val Lys Pro Gly Ser Pro Gly Leu
690 695 700

Pro Pro Pro Leu Arg Arg Ser Thr Arg Leu Lys Thr
705 710 715

<210> 28
<211> 714
<212> PRT
<213> Mouse

<400> 28

Met Phe Asn Pro Gln Leu Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln
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Gln Gln Leu Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln Gln Gln
20 25 30

Gln Gln Ile Leu Gln Leu Gln Gln Leu Leu Gln Gln Ser Pro Pro Gln
35 40 45

Ala Ser Leu Ser Ile Pro Val Ser Arg Gly Leu Pro Gln Gln Ser Ser
50 55 60

Pro Gln Gln Leu Leu Ser Leu Gln Gly Leu His Ser Thr Ser Leu Leu
65 70 75 80

Asn Gly Pro Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly
85 90 95

Leu Asp Gln Phe Ala Met Pro Pro Ala Thr Tyr Asp Gly Ala Ser Leu
100 105 110

Thr Met Pro Thr Ala Thr Leu Gly Asn Leu Arg Ala Phe Asn Val Thr
115 120 125

Ala Pro Ser Leu Ala Ala Pro Ser Leu Thr Pro Pro Gln Met Val Thr
130 135 140

Pro Asn Leu Gln Gln Phe Phe Pro Gln Ala Thr Arg Gln Ser Leu Leu
145 150 155 160

Gly Pro Pro Pro Val Gly Val Pro Ile Asn Pro Ser Gln Leu Asn His
165 170 175

Ser Gly Arg Asn Thr Gln Lys Gln Ala Arg Thr Pro Ser Ser Thr Thr
180 185 190

Pro Asn Arg Lys Thr Val Pro Leu Glu Asp Arg Glu Asp Pro Thr Glu
195 200 205

Gly Ser Glu Glu Ala Thr Glu Leu Gln Met Asp Thr Cys Glu Asp Gln
210 215 220

Asp Ser Leu Val Gly Pro Asp Ser Met Leu Ser Glu Pro Gln Val Pro
225 230 235 240

Glu Pro Glu Pro Phe Glu Thr Leu Glu Pro Pro Ala Lys Arg Cys Arg
245 250 255

Ser Ser Glu Glu Ser Thr Glu Lys Gly Pro Thr Gly Gln Pro Gln Ala
260 265 270

Arg Val Gln Pro Gln Thr Gln Met Thr Ala Pro Lys Gln Thr Gln Thr
275 280 285

Pro Asp Arg Leu Pro Glu Pro Pro Glu Val Gln Met Leu Pro Arg Ile
290 295 300

Gln Pro Gln Ala Leu Gln Ile Gln Thr Gln Pro Lys Leu Leu Arg Gln
305 310 315 320

Ala Gln Thr Gln Thr Ser Pro Glu His Leu Ala Pro Gln Gln Asp Gln
325 330 335

Val Pro Thr Gln Ala Gln Ser Gln Glu Gln Thr Ser Glu Lys Thr Gln
340 345 350

Asp Gln Pro Gln Thr Trp Pro Gln Gly Ser Val Pro Pro Pro Glu Gln
355 360 365

Ala Ser Gly Pro Ala Cys Ala Thr Glu Pro Gln Leu Ser Ser His Ala
370 375 380

Ala Glu Ala Gly Ser Asp Pro Asp Lys Ala Leu Pro Glu Pro Val Ser
385 390 395 400

Ala Gln Ser Ser Glu Asp Arg Ser Arg Glu Ala Ser Ala Gly Gly Leu
405 410 415

Asp Leu Gly Glu Cys Glu Lys Arg Ala Gly Glu Met Leu Gly Met Trp
420 425 430

Gly Ala Gly Ser Ser Leu Lys Val Thr Ile Leu Gln Ser Ser Asn Ser
435 440 445

Arg Ala Phe Asn Thr Thr Pro Leu Thr Ser Gly Pro Ser Pro Gly Asp
450 455 460

Ser Thr Ser Ala Thr Pro Ala Ile Ala Ser Thr Pro Ser Lys Gln Ser
465 470 475 480

Leu Gln Phe Phe Cys Tyr Ile Cys Lys Ala Ser Ser Ser Gln Gln
485 490 495

Glu Phe Gln Asp His Met Ser Glu Ala Gln His Gln Gln Arg Leu Gly
500 505 510

Glu Ile Gln His Ser Ser Gln Thr Cys Leu Leu Ser Leu Leu Pro Met
515 520 525

Pro Arg Asp Ile Leu Glu Lys Glu Ala Glu Asp Pro Pro Pro Lys Arg
530 535 540

Trp Cys Asn Thr Cys Gln Val Tyr Tyr Val Gly Asp Leu Ile Gln His
545 550 555 560

Arg Arg Thr Gln Glu His Lys Val Ala Lys Gln Ser Leu Arg Pro Phe
565 570 575

Cys Thr Ile Cys Asn Arg Tyr Phe Lys Thr Pro Arg Lys Phe Val Glu
580 585 590

His Val Lys Ser Gln Gly His Lys Asp Lys Ala Gln Glu Leu Lys Thr
595 600 605

Leu Glu Lys Glu Thr Gly Ser Pro Asp Glu Asp His Phe Ile Thr Val
610 615 620

Glu Ala Val Gly Cys Phe Glu Ser Gly Gln Glu Glu Asp Glu Asp Asp
625 630 635 640

Asp Glu Glu Glu Glu Glu Gly Glu Ile Glu Ala Glu Glu Glu Phe
645 650 655

Cys Lys Gln Val Lys Pro Arg Glu Thr Ser Ser Glu Gln Gly Lys Gly
660 665 670

Ser Glu Thr Tyr Asn Pro Asn Thr Ala Tyr Gly Glu Asp Phe Leu Val
675 680 685

Pro Val Met Gly Tyr Val Cys Gln Ile Cys His Lys Phe Tyr Asp Ser
690 695 700

Asn Ser Glu Leu Arg Leu Ser His Cys Lys
705 710

<210> 29

<211> 898

<212> PRT

<213> Homo sapiens

<400> 29

Met Phe Ser Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln Gln
1 5 10 15

Leu Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln
20 25 30

Gln Gln Leu Leu Gln Leu Gln Leu Leu Gln Gln Ser Pro Pro Gln
35 40 45

Ala Pro Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro
50 55 60

Gln Gln Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu
65 70 75 80

Asn Gly Ser Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly
85 90 95

Leu Asp Gln Phe Ala Met Pro Pro Ala Thr Tyr Asp Thr Ala Gly Leu
100 105 110

Thr Met Pro Thr Ala Thr Leu Gly Asn Leu Arg Gly Tyr Gly Met Ala
115 120 125

Ser Pro Gly Leu Ala Ala Pro Ser Leu Thr Pro Pro Gln Leu Ala Thr
130 135 140

Pro Asn Leu Gln Gln Phe Phe Pro Gln Ala Thr Arg Gln Ser Leu Leu
145 150 155 160

Gly Pro Pro Pro Val Gly Val Pro Met Asn Pro Ser Gln Phe Asn Leu
165 170 175

Ser Gly Arg Asn Pro Gln Lys Gln Ala Arg Thr Ser Ser Ser Thr Thr
180 185 190

Pro Asn Arg Lys Asp Ser Ser Ser Gln Thr Met Pro Val Glu Asp Lys
195 200 205

Ser Asp Pro Pro Glu Gly Ser Glu Glu Ala Ala Glu Pro Arg Met Asp
210 215 220

Thr Pro Glu Asp Gln Asp Leu Pro Pro Cys Pro Glu Asp Ile Ala Lys
225 230 235 240

Glu Lys Arg Thr Pro Ala Pro Glu Pro Glu Pro Cys Glu Ala Ser Glu
245 250 255

Leu Pro Ala Lys Arg Leu Arg Ser Ser Glu Glu Pro Thr Glu Lys Glu
260 265 270

Pro Pro Gly Gln Leu Gln Val Lys Ala Gln Pro Gln Ala Arg Met Thr
275 280 285

Val Pro Lys Gln Thr Gln Thr Pro Asp Leu Leu Pro Glu Ala Leu Glu
290 295 300

Ala Gln Val Leu Pro Arg Phe Gln Pro Arg Val Leu Gln Val Gln Ala
305 310 315 320

Gln Val Gln Ser Gln Thr Gln Pro Arg Ile Pro Ser Thr Asp Thr Gln
325 330 335

Val Gln Pro Lys Leu Gln Lys Gln Ala Gln Thr Gln Thr Ser Pro Glu
340 345 350

His Leu Val Leu Gln Gln Lys Gln Val Gln Pro Gln Leu Gln Gln Glu
355 360 365

Ala Glu Pro Gln Lys Gln Val Gln Pro Gln Val Gln Pro Gln Ala His
370 375 380

Ser Gln Gly Pro Arg Gln Val Gln Leu Gln Gln Glu Ala Glu Pro Leu
385 390 395 400

Lys Gln Val Gln Pro Gln Val Gln Pro Gln Ala His Ser Gln Pro Pro
405 410 415

Arg Gln Val Gln Leu Gln Leu Gln Lys Gln Val Gln Thr Gln Thr Tyr
420 425 430

Pro Gln Val His Thr Gln Ala Gln Pro Ser Val Gln Pro Gln Glu His
435 440 445

Pro Pro Ala Gln Val Ser Val Gln Pro Pro Glu Gln Thr His Glu Gln
450 455 460

Pro His Thr Gln Pro Gln Val Ser Leu Leu Ala Pro Glu Gln Thr Pro
465 470 475 480

Val Val Val His Val Cys Gly Leu Glu Met Pro Pro Asp Ala Val Glu
485 490 495

Ala Gly Gly Gly Met Glu Lys Thr Leu Pro Glu Pro Val Gly Thr Gln
500 505 510

Val Ser Met Glu Glu Ile Gln Asn Glu Ser Ala Cys Gly Leu Asp Val
515 520 525

Gly Glu Cys Glu Asn Arg Ala Arg Glu Met Pro Gly Val Trp Gly Ala
530 535 540

Gly Gly Ser Leu Lys Val Thr Ile Leu Gln Ser Ser Asp Ser Arg Ala
545 550 555 560

Phe Ser Thr Val Pro Leu Thr Pro Val Pro Arg Pro Ser Asp Ser Val
565 570 575

Ser Ser Thr Pro Ala Ala Thr Ser Thr Pro Ser Lys Gln Ala Leu Gln
580 585 590

Phe Phe Cys Tyr Ile Cys Lys Ala Ser Cys Ser Ser Gln Gln Glu Phe
595 600 605

Gln Asp His Met Ser Glu Pro Gln His Gln Gln Arg Leu Gly Glu Ile
610 615 620

Gln His Met Ser Gln Ala Cys Leu Leu Ser Leu Leu Pro Val Pro Arg
625 630 635 640

Asp Val Leu Glu Thr Glu Asp Glu Glu Pro Pro Pro Arg Arg Trp Cys
645 650 655

Asn Thr Cys Gln Leu Tyr Tyr Met Gly Asp Leu Ile Gln His Arg Arg
660 665 670

Thr Gln Asp His Lys Ile Ala Lys Gln Ser Leu Arg Pro Phe Cys Thr
675 680 685

Val Cys Asn Arg Tyr Phe Lys Thr Pro Arg Lys Phe Val Glu His Val
690 695 700

Lys Ser Gln Gly His Lys Asp Lys Ala Lys Glu Leu Lys Ser Leu Glu
705 710 715 720

Lys Glu Ile Ala Gly Gln Asp Glu Asp His Phe Ile Thr Val Asp Ala
725 730 735

Val Gly Cys Phe Glu Gly Asp Glu Glu Glu Glu Asp Asp Glu Asp
740 745 750

Glu Glu Glu Ile Glu Val Glu Glu Glu Leu Cys Lys Gln Val Arg Ser
755 760 765

Arg Asp Ile Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr Tyr Ser Pro
770 775 780

Asn Thr Ala Tyr Gly Val Asp Phe Leu Val Pro Val Met Gly Tyr Ile
785 790 795 800

Cys Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly Ala Gln Leu
805 810 815

Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln Lys Tyr Lys
820 825 830

Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser Arg Arg Cys
835 840 845

Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr Ser Ser Gly
850 855 860

Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro Ser Lys Val
865 870 875 880

Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser Thr Arg Leu
885 890 895

Lys Thr

<210> 30

<211> 898

<212> PRT

<213> Homo sapiens

<400> 30

Met Phe Ser Gln Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln
1 5 10 15

Leu Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln
20 25 30

Gln Gln Leu Leu Gln Leu Gln Leu Leu Gln Gln Ser Pro Pro Gln
35 40 45

Ala Pro Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro
50 55 60

Gln Gln Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu
65 70 75 80

Asn Gly Ser Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly
85 90 95

Leu Asp Gln Phe Ala Met Pro Pro Ala Thr Tyr Asp Thr Ala Gly Leu
100 105 110

Thr Met Pro Thr Ala Thr Leu Gly Asn Leu Arg Gly Tyr Gly Met Ala
115 120 125

Ser Pro Gly Leu Ala Ala Pro Ser Leu Thr Pro Pro Gln Leu Ala Thr
130 135 140

Pro Asn Leu Gln Gln Phe Phe Pro Gln Ala Thr Arg Gln Ser Leu Leu
145 150 155 160

Gly Pro Pro Pro Val Gly Val Pro Met Asn Pro Ser Gln Phe Asn Leu
165 170 175

Ser Gly Arg Asn Pro Gln Lys Gln Ala Arg Thr Ser Ser Ser Thr Thr
180 185 190

Pro Asn Arg Lys Asp Ser Ser Ser Gln Thr Met Pro Val Glu Asp Lys
195 200 205

Ser Asp Pro Pro Glu Gly Ser Glu Glu Ala Ala Glu Pro Arg Met Asp
210 215 220

Thr Pro Glu Asp Gln Asp Leu Leu Pro Cys Pro Glu Asp Ile Ala Lys
225 230 235 240

Glu Lys Arg Thr Pro Ala Pro Glu Pro Glu Pro Cys Glu Ala Ser Glu
245 250 255

Leu Pro Ala Lys Arg Leu Arg Ser Ser Glu Glu Pro Thr Glu Lys Glu
260 265 270

Pro Pro Gly Gln Leu Gln Val Lys Ala Gln Pro Gln Ala Arg Met Thr
275 280 285

Val Pro Lys Gln Thr Gln Thr Pro Asp Leu Leu Pro Glu Ala Leu Glu
290 295 300

Ala Gln Val Leu Pro Arg Phe Gln Pro Arg Val Leu Gln Val Gln Ala
305 310 315 320

Gln Val Gln Ser Gln Thr Gln Pro Arg Ile Pro Ser Thr Asp Thr Gln
325 330 335

Val Gln Pro Lys Leu Gln Lys Gln Ala Gln Thr Gln Thr Ser Pro Glu
340 345 350

His Leu Val Leu Gln Gln Lys Gln Val Gln Pro Gln Leu Gln Gln Glu
355 360 365

Ala Glu Pro Gln Lys Gln Val Gln Pro Gln Val Gln Pro Gln Ala His
370 375 380

Ser Gln Gly Pro Arg Gln Val Gln Leu Gln Gln Glu Ala Glu Pro Leu
385 390 395 400

Lys Gln Val Gln Pro Gln Val Gln Pro Gln Ala His Ser Gln Pro Pro
405 410 415

Arg Gln Val Gln Leu Gln Leu Gln Lys Gln Val Gln Thr Gln Thr Tyr
420 425 430

Pro Gln Val His Thr Gln Ala Gln Pro Ser Val Gln Pro Gln Glu His
435 440 445

Pro Pro Ala Gln Val Ser Val Gln Pro Pro Glu Gln Thr His Glu Gln
450 455 460

Pro His Thr Gln Pro Gln Val Ser Leu Leu Ala Pro Glu Gln Thr Pro
465 470 475 480

Val Val Val His Val Cys Gly Leu Glu Met Pro Pro Asp Ala Val Glu
485 490 495

Ala Gly Gly Gly Met Glu Lys Thr Leu Pro Glu Pro Val Gly Thr Gln
500 505 510

Val Ser Met Glu Glu Ile Gln Asn Glu Ser Ala Cys Gly Leu Asp Val
515 520 525

Gly Glu Cys Glu Asn Arg Ala Arg Glu Met Pro Gly Val Trp Gly Ala
530 535 540

Gly Gly Ser Leu Lys Val Thr Ile Leu Gln Gly Ser Asp Ser Arg Ala
545 550 555 560

Phe Ser Thr Val Pro Leu Thr Pro Val Pro Arg Pro Ser Asp Ser Val
565 570 575

Ser Ser Thr Pro Ala Ala Thr Ser Thr Pro Ser Lys Gln Ala Leu Gln
580 585 590

Phe Phe Cys Tyr Ile Cys Lys Ala Ser Cys Ser Ser Gln Gln Glu Phe
595 600 605

Gln Asp His Met Ser Glu Pro Gln His Gln Gln Arg Leu Gly Glu Ile
610 615 620

Gln His Met Ser Gln Ala Cys Leu Leu Ser Leu Leu Pro Val Pro Arg
625 630 635 640

Asp Val Leu Glu Thr Glu Asp Glu Glu Pro Pro Pro Arg Arg Trp Cys
645 650 655

Asn Thr Cys Gln Leu Tyr Tyr Met Gly Asp Leu Ile Gln His Arg Arg
660 665 670

Thr Gln Asp His Lys Ile Ala Lys Gln Ser Leu Arg Pro Phe Cys Thr
675 680 685

Val Cys Asn Arg Tyr Phe Lys Thr Pro Arg Lys Phe Val Glu His Val
690 695 700

Lys Ser Gln Gly His Lys Asp Lys Ala Lys Glu Leu Lys Ser Leu Glu
705 710 715 720

Lys Glu Ile Ala Gly Gln Asp Glu Asp His Phe Ile Thr Val Asp Ala
725 730 735

Val Gly Cys Phe Glu Gly Asp Glu Glu Glu Glu Asp Asp Glu Asp
740 745 750

Glu Glu Glu Ile Glu Val Glu Glu Glu Leu Cys Lys Gln Val Arg Ser
755 760 765

Arg Asp Ile Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr Tyr Ser Pro
770 775 780

Asn Thr Ala Tyr Gly Val Asp Phe Leu Val Pro Val Met Gly Tyr Ile
785 790 795 800

Cys Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly Ala Gln Leu
805 810 815

Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln Lys Tyr Lys
820 825 830

Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser Arg Arg Cys
835 840 845

Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr Ser Ser Gly
850 855 860

Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro Ser Lys Val
865 870 875 880

Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser Thr Arg Leu
885 890 895

Lys Thr

<210> 31

<211> 896

<212> PRT

<213> Homo sapiens

<400> 31

Phe Ser Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln Leu Gln
1 5 10 15

Gln Leu Gln Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln Gln Gln
20 25 30

Ser Leu Gln Leu Gln Leu Leu Gln Gln Ser Pro Pro Gln Ala Pro
35 40 45

Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro Gln Gln
50 55 60

Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu Asn Gly
65 70 75 80

Ser Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly Leu Asp
85 90 95

Gln Phe Ala Met Pro Pro Ala Thr Tyr Asp Thr Ala Gly Leu Thr Met
100 105 110

Pro Thr Ala Thr Leu Gly Asn Leu Arg Gly Tyr Gly Met Ala Ser Pro
115 120 125

Gly Leu Ala Ala Pro Ser Leu Thr Pro Pro Gln Leu Ala Thr Pro Asn
130 135 140

Leu Gln Gln Phe Phe Pro Gln Ala Thr Arg Gln Ser Leu Leu Gly Pro
145 150 155 160

Pro Pro Val Gly Val Pro Met Asn Pro Ser Gln Phe Asn Leu Ser Gly
165 170 175

Arg Asn Pro Gln Lys Gln Ala Arg Thr Ser Ser Ser Thr Thr Pro Asn
180 185 190

Arg Lys Asp Ser Ser Ser Gln Thr Met Pro Val Glu Asp Lys Ser Asp
195 200 205

Pro Pro Glu Gly Ser Glu Glu Ala Ala Glu Pro Arg Met Asp Thr Pro
210 215 220

Glu Asp Gln Asp Leu Pro Pro Cys Pro Glu Asp Ile Ala Lys Glu Lys
225 230 235 240

Arg Thr Pro Ala Pro Glu Pro Glu Pro Cys Glu Ala Ser Glu Leu Pro
245 250 255

Ala Lys Arg Leu Arg Ser Ser Glu Glu Pro Thr Glu Lys Glu Pro Pro
260 265 270

Gly Gln Leu Gln Val Lys Ala Gln Pro Gln Ala Arg Met Thr Val Pro
275 280 285

Lys Gln Thr Gln Thr Pro Asp Leu Leu Pro Glu Ala Leu Glu Ala Gln
290 295 300

Val Leu Pro Arg Phe Gln Pro Arg Val Leu Gln Val Gln Ala Gln Val
305 310 315 320

Gln Ser Gln Thr Gln Pro Arg Ile Pro Ser Thr Asp Thr Gln Val Gln
325 330 335

Pro Lys Leu Gln Lys Gln Ala Gln Thr Gln Thr Ser Pro Glu His Leu
340 345 350

Val Leu Gln Gln Lys Gln Val Gln Pro Gln Leu Gln Gln Glu Ala Glu
355 360 365

Pro Gln Lys Gln Val Gln Pro Gln Val Gln Pro Gln Ala His Ser Gln
370 375 380

Gly Pro Arg Gln Val Gln Leu Gln Gln Glu Ala Glu Pro Leu Lys Gln
385 390 395 400

Val Gln Pro Gln Val Gln Pro Gln Ala His Ser Gln Pro Pro Arg Gln
405 410 415

Val Gln Leu Gln Leu Gln Lys Gln Val Gln Thr Gln Thr Tyr Pro Gln
420 425 430

Val His Thr Gln Ala Gln Pro Ser Val Gln Pro Gln Glu His Pro Pro
435 440 445

Ala Gln Val Ser Val Gln Pro Pro Glu Gln Thr His Glu Gln Pro His
450 455 460

Thr Gln Pro Gln Val Ser Leu Leu Ala Pro Glu Gln Thr Pro Val Val
465 470 475 480

Val His Val Cys Gly Leu Glu Met Pro Pro Asp Ala Val Glu Ala Gly
485 490 495

Gly Gly Met Glu Lys Thr Leu Pro Glu Pro Val Gly Thr Gln Val Ser
500 505 510

Met Glu Glu Ile Gln Asn Glu Ser Ala Cys Gly Leu Asp Val Gly Glu
515 520 525

Cys Glu Asn Arg Ala Arg Glu Met Pro Gly Val Trp Gly Ala Gly Gly
530 535 540

Ser Leu Lys Val Thr Ile Leu Gln Ser Ser Asp Ser Arg Ala Phe Ser
545 550 555 560

Thr Val Pro Leu Thr Leu Val Pro Arg Pro Ser Asp Ser Val Ser Ser
565 570 575

Thr Pro Ala Ala Thr Ser Thr Pro Ser Lys Gln Ala Leu Gln Phe Phe
580 585 590

Cys Tyr Ile Cys Lys Ala Ser Cys Ser Ser Gln Gln Glu Phe Gln Asp
595 600 605

His Met Ser Glu Pro Gln His Gln Gln Arg Leu Gly Glu Ile Gln His
610 615 620

Met Ser Gln Ala Cys Leu Leu Pro Leu Leu Pro Val Pro Arg Asp Val
625 630 635 640

Leu Glu Thr Glu Asp Glu Glu Pro Pro Pro Arg Arg Trp Cys Asn Thr
645 650 655

Cys Gln Leu Tyr Tyr Met Gly Asp Leu Ile Gln His Arg Arg Thr Gln
660 665 670

Asp His Lys Ile Ala Lys Gln Ser Leu Arg Pro Phe Cys Thr Val Cys
675 680 685

Asn Arg Tyr Phe Lys Thr Pro Arg Lys Phe Val Glu His Val Lys Ser
690 695 700

Gln Gly His Lys Asp Lys Ala Lys Glu Leu Lys Ser Leu Glu Lys Glu
705 710 715 720

Ile Ala Gly Gln Asp Glu Asp His Phe Ile Thr Val Gly Ala Val Gly
725 730 735

Cys Phe Glu Gly Asp Glu Glu Glu Glu Asp Asp Glu Asp Glu Glu
740 745 750

Glu Ile Glu Val Glu Glu Glu Leu Cys Lys Gln Val Arg Ser Arg Asp
755 760 765

Ile Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr Tyr Ser Pro Asn Thr
770 775 780

Ala Tyr Gly Val Asp Phe Leu Val Pro Val Met Gly Tyr Ile Cys Arg
785 790 795 800

Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly Ala Gln Leu Ser His
805 810 815

Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln Lys Tyr Lys Ala Ala
820 825 830

Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser Arg Arg Cys Ala Ile
835 840 845

Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr Ser Ser Gly Arg Pro
850 855 860

Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro Ser Lys Val Thr Ala
865 870 875 880

Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser Thr Arg Leu Lys Thr
885 890 895

<210> 32
<211> 842
<212> PRT
<213> Homo sapiens

<400> 32

Met Phe Ser Gln Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln Gln
1 5 10 15

Leu Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln
20 25 30

Gln Gln Leu Leu Gln Leu Gln Leu Leu Gln Gln Ser Pro Pro Gln
35 40 45

Ala Pro Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro
50 55 60

Gln Gln Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu
65 70 75 80

Asn Gly Ser Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly
85 90 95

Leu Asp Gln Phe Val Met Pro Pro Ala Thr Tyr Asp Thr Ala Gly Leu
100 105 110

Thr Met Pro Thr Ala Thr Leu Gly Asn Leu Arg Gly Tyr Gly Met Ala
115 120 125

Ser Pro Gly Leu Ala Ala Pro Ser Leu Thr Pro Pro Gln Leu Ala Thr
130 135 140

Pro Asn Leu Gln Gln Phe Phe Pro Gln Ala Thr Arg Gln Ser Leu Leu
145 150 155 160

Gly Pro Pro Pro Val Gly Val Pro Met Asn Pro Ser Gln Phe Asn Leu
165 170 175

Ser Gly Arg Asn Pro Gln Lys Gln Ala Arg Thr Ser Ser Ser Thr Thr
180 185 190

Pro Asn Arg Lys Asp Ser Ser Ser Gln Thr Met Pro Val Glu Asp Lys
195 200 205

Ser Asp Pro Pro Glu Gly Ser Glu Glu Ala Ala Glu Pro Arg Met Asp
210 215 220

Thr Pro Glu Asp Gln Asp Leu Pro Pro Cys Pro Glu Asp Ile Ala Lys
225 230 235 240

Glu Lys Arg Thr Pro Ala Pro Glu Pro Glu Pro Cys Glu Ala Ser Glu
245 250 255

Leu Pro Ala Lys Arg Leu Arg Ser Ser Glu Glu Pro Thr Glu Lys Glu
260 265 270

Pro Pro Gly Gln Leu Gln val Lys Ala Gln Pro Gln Ala Arg Met Thr
275 280 285

Val Pro Lys Gln Thr Gln Thr Pro Asp Leu Leu Pro Glu Ala Leu Glu
290 295 300

Ala Gln Val Leu Pro Arg Phe Gln Pro Arg Val Leu Gln Val Gln Ala
305 310 315 320

Gln Val Gln Ser Gln Thr Gln Pro Arg Ile Pro Ser Thr Asp Thr Gln
325 330 335

Val Gln Pro Lys Leu Gln Lys Gln Ala Gln Thr Gln Thr Ser Pro Glu
340 345 350

His Leu Val Leu Gln Gln Lys Gln Val Gln Pro Gln Leu Gln Gln Glu
355 360 365

Ala Glu Pro Gln Lys Gln Val Gln Pro Gln Val His Thr Gln Ala Gln
370 375 380

Pro Ser Val Gln Pro Gln Glu His Pro Pro Ala Gln Val Ser Val Gln
385 390 395 400

Pro Pro Glu Gln Thr His Glu Gln Pro His Thr Gln Pro Gln Val Ser
405 410 415

Leu Leu Ala Pro Glu Gln Thr Pro Val Val Val His Val Cys Gly Leu
420 425 430

Glu Met Pro Pro Asp Ala Val Glu Ala Gly Gly Gly Met Glu Lys Thr
435 440 445

Leu Pro Glu Pro Val Gly Thr Gln Val Ser Met Glu Glu Ile Gln Asn
450 455 460

Glu Ser Ala Cys Gly Leu Asp Val Gly Glu Cys Glu Asn Arg Ala Arg
465 470 475 480

Glu Met Pro Gly Val Trp Gly Ala Gly Gly Ser Leu Lys Val Thr Ile
485 490 495

Leu Gln Ser Ser Asp Ser Arg Ala Phe Ser Thr Val Pro Leu Thr Pro
500 505 510

Val Pro Arg Pro Ser Asp Ser Val Ser Ser Thr Pro Ala Ala Thr Ser
515 520 525

Thr Pro Ser Lys Gln Ala Leu Gln Phe Phe Cys Tyr Ile Cys Lys Ala
530 535 540

Ser Cys Ser Ser Gln Gln Glu Phe Gln Asp His Met Ser Glu Pro Gln
545 550 555 560

His Gln Gln Arg Leu Gly Glu Ile Gln His Met Ser Gln Ala Cys Leu
565 570 575

Leu Ser Leu Leu Pro Met Pro Arg Asp Val Leu Glu Thr Glu Asp Glu
580 585 590

Glu Pro Pro Pro Arg Arg Trp Cys Asn Thr Cys Gln Leu Tyr Tyr Met
595 600 605

Gly Asp Leu Ile Gln His Arg Arg Thr Gln Asp His Lys Val Ala Lys
610 615 620

Gln Pro Leu Arg Pro Phe Cys Thr Val Cys Asn Arg Tyr Phe Lys Thr
625 630 635 640

Pro Arg Lys Phe Val Glu His Val Lys Ser Gln Gly His Lys Asp Lys
645 650 655

Ala Lys Glu Leu Lys Ser Leu Glu Lys Glu Ile Ala Gly Gln Asp Glu
660 665 670

Asp His Phe Ile Thr Val Asp Ala Val Gly Cys Phe Glu Gly Asp Glu
675 680 685

Glu Glu Glu Glu Asp Asp Glu Asp Glu Glu Glu Ile Lys Val Glu Glu
690 695 700

Glu Leu Cys Lys Gln Val Arg Ser Arg Asp Ile Ser Arg Glu Glu Trp
705 710 715 720

Lys Gly Ser Glu Thr Tyr Ser Pro Asn Thr Ala Tyr Gly Val Asp Phe
725 730 735

Leu Val Pro Val Met Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr
740 745 750

His Ser Asn Ser Gly Ala Gln Leu Ser His Cys Lys Ser Leu Gly His
755 760 765

Phe Glu Asn Leu Gln Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr
770 775 780

Thr Arg Pro Val Ser Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu
785 790 795 800

Thr Ala Leu Phe Thr Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr
805 810 815

Gln Asp Lys Thr Pro Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro
820 825 830

Leu Pro Arg Arg Ser Thr Arg Leu Lys Thr
835 840

<210> 33

<211> 837

<212> PRT

<213> Homo sapiens

<400> 33

Met Phe Ser Gln Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Ala
1 5 10 15

Pro Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro Gln
20 25 30

Gln Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu Asn
35 40 45

Gly Ser Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly Leu
50 55 60

Asp Gln Phe Ala Met Pro Pro Ala Thr Tyr Asp Thr Ala Gly Leu Thr
65 70 75 80

Met Pro Thr Ala Thr Leu Gly Asn Leu Arg Gly Tyr Gly Met Ala Ser
85 90 95

Pro Gly Leu Ala Ala Pro Ser Leu Thr Pro Pro Gln Leu Ala Thr Pro
100 105 110

Asn Leu Gln Gln Phe Phe Pro Gln Ala Thr Arg Gln Ser Leu Leu Gly
115 120 125

Pro Pro Pro Val Gly Val Pro Met Asn Pro Ser Gln Phe Asn Leu Ser
130 135 140

Gly Arg Asn Pro Gln Lys Gln Ala Arg Thr Ser Ser Ser Thr Thr Pro
145 150 155 160

Asn Arg Lys Asp Ser Ser Ser Gln Thr Met Pro Val Glu Asp Lys Ser
165 170 175

Asp Pro Pro Glu Gly Ser Glu Glu Ala Ala Glu Pro Arg Met Asp Thr
180 185 190

Pro Glu Asp Gln Asp Leu Pro Pro Cys Pro Glu Asp Ile Ala Lys Glu
195 200 205

Lys Arg Thr Pro Ala Pro Glu Pro Glu Pro Cys Glu Ala Ser Glu Leu
210 215 220

Pro Ala Lys Arg Leu Arg Ser Ser Glu Glu Pro Thr Glu Lys Glu Pro
225 230 235 240

Pro Gly Gln Leu Gln Val Lys Ala Gln Pro Gln Ala Arg Met Thr Val
245 250 255

Pro Lys Gln Thr Gln Thr Pro Asp Leu Leu Pro Glu Ala Leu Glu Ala
260 265 270

Gln Val Leu Pro Arg Phe Gln Pro Arg Val Leu Gln Val Gln Ala Gln
275 280 285

Val Gln Ser Gln Thr Gln Pro Arg Ile Pro Ser Thr Asp Thr Gln Val
290 295 300

Gln Pro Lys Leu Gln Lys Gln Ala Gln Thr Gln Thr Ser Pro Glu His
305 310 315 320

Leu Val Leu Gln Gln Lys Gln Val Gln Pro Gln Leu Gln Gln Glu Ala
325 330 335

Glu Pro Gln Lys Gln Val Gln Pro Gln Val Gln Pro Gln Ala His Ser
340 345 350

Gln Gly Pro Arg Gln Val Gln Leu Gln Gln Glu Ala Glu Pro Leu Lys
355 360 365

Gln Val Gln Pro Gln Val His Thr Gln Ala Gln Pro Ser Val Gln Pro
370 375 380

Gln Glu His Pro Pro Ala Gln Val Ser Val Gln Pro Pro Glu Gln Thr
385 390 395 400

His Glu Gln Pro His Thr Gln Pro Gln Val Ser Leu Leu Ala Pro Glu
405 410 415

Gln Thr Pro Val Val Val His Val Cys Gly Leu Glu Met Pro Pro Asp
420 425 430

Ala Val Glu Ala Gly Gly Met Glu Lys Thr Leu Pro Glu Pro Val
435 440 445

Gly Thr Gln Val Ser Met Glu Glu Ile Gln Asn Glu Ser Ala Cys Gly
450 455 460

Leu Asp Val Gly Glu Cys Glu Asn Arg Ala Arg Glu Met Pro Gly Val
465 470 475 480

Trp Gly Ala Gly Gly Ser Leu Lys Val Thr Ile Leu Gln Ser Ser Asp
485 490 495

Ser Arg Ala Phe Ser Thr Val Pro Leu Thr Pro Val Pro Arg Pro Ser
500 505 510

Asp Ser Val Ser Ser Thr Pro Ala Ala Thr Ser Thr Pro Ser Lys Gln
515 520 525

Ala Leu Gln Phe Phe Cys Tyr Ile Cys Lys Ala Ser Cys Ser Ser Gln
530 535 540

Gln Glu Phe Gln Asp His Met Ser Glu Pro Gln His Gln Gln Arg Leu
545 550 555 560

Gly Glu Ile Gln His Met Ser Gln Ala Cys Leu Leu Ser Leu Leu Pro
565 570 575

Val Pro Arg Asp Val Leu Glu Thr Glu Asp Glu Glu Pro Pro Pro Arg
580 585 590

Arg Trp Cys Asn Thr Cys Gln Leu Tyr Tyr Met Gly Asp Leu Ile Gln
595 600 605

His Arg Arg Thr Gln Asp His Lys Ile Ala Lys Gln Ser Leu Arg Pro
610 615 620

Phe Cys Thr Val Cys Asn Arg Tyr Phe Lys Thr Pro Arg Lys Phe Val
625 630 635 640

Glu His Val Lys Ser Gln Gly His Lys Asp Lys Ala Lys Glu Leu Lys
645 650 655

Ser Leu Glu Lys Glu Ile Ala Gly Gln Asp Glu Asp His Phe Ile Thr
660 665 670

Val Asp Ala Val Gly Cys Phe Glu Gly Asp Glu Glu Glu Glu Asp
675 680 685

Asp Glu Asp Glu Glu Glu Ile Glu Val Glu Glu Glu Leu Cys Lys Gln
690 695 700

Val Arg Ser Arg Asp Ile Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr
705 710 715 720

Tyr Ser Pro Asn Thr Ala Tyr Gly Val Asp Phe Leu Val Pro Val Met
725 730 735

Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly
740 745 750

Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln
755 760 765

Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser
770 775 780

Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr
785 790 795 800

Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro
805 810 815

Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser
820 825 830

Thr Arg Leu Lys Thr
835

<210> 34

<211> 818

<212> PRT

<213> Homo sapiens

<400> 34

Met Phe Ser Gln Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln Gln
1 5 10 15

Leu Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln
20 25 30

Gln Gln Leu Leu Gln Leu Gln Leu Leu Gln Gln Ser Pro Pro Gln
35 40 45

Ala Pro Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro
50 55 60

Gln Gln Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu
65 70 75 80

Asn Gly Ser Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly
85 90 95

Asn Leu Arg Gly Tyr Gly Met Ala Ser Pro Gly Leu Ala Ala Pro Ser
100 105 110

Leu Thr Pro Pro Gln Leu Ala Thr Pro Asn Leu Gln Gln Phe Phe Pro
115 120 125

Gln Ala Thr Arg Gln Ser Leu Leu Gly Pro Pro Pro Val Gly Val Pro
130 135 140

Met Asn Pro Ser Gln Phe Asn Leu Ser Gly Arg Asn Pro Gln Lys Gln
145 150 155 160

Ala Arg Thr Ser Ser Ser Thr Thr Pro Asn Arg Lys Asp Ser Ser Ser
165 170 175

Gln Thr Met Pro Val Glu Asp Lys Ser Asp Pro Pro Glu Gly Ser Glu
180 185 190

Glu Ala Ala Glu Pro Arg Met Asp Thr Pro Glu Asp Gln Asp Leu Pro
195 200 205

Pro Cys Pro Glu Asp Ile Ala Lys Glu Lys Arg Thr Pro Ala Pro Glu
210 215 220

Pro Glu Pro Cys Glu Ala Ser Glu Leu Pro Ala Lys Arg Leu Arg Ser
225 230 235 240

Ser Glu Glu Pro Thr Glu Lys Glu Pro Pro Gly Gln Leu Gln Val Lys
245 250 255

Ala Gln Pro Gln Ala Arg Met Thr Val Pro Lys Gln Thr Gln Thr Pro
260 265 270

Asp Leu Leu Pro Glu Ala Leu Glu Ala Gln Val Leu Pro Arg Phe Gln
275 280 285

Pro Arg Val Leu Gln Val Gln Ala Gln Val Gln Ser Gln Thr Gln Pro
290 295 300

Arg Ile Pro Ser Thr Asp Thr Gln Val Gln Pro Lys Leu Gln Lys Gln
305 310 315 320

Ala Gln Thr Gln Thr Ser Pro Glu His Leu Val Leu Gln Gln Lys Gln
325 330 335

Val Gln Pro Gln Leu Gln Gln Glu Ala Glu Pro Gln Lys Gln Val Gln
340 345 350

Pro Gln Val His Thr Gln Ala Gln Pro Ser Val Gln Pro Gln Glu His
355 360 365

Pro Pro Ala Gln Val Ser Val Gln Pro Pro Glu Gln Thr His Glu Gln
370 375 380

Pro His Thr Gln Pro Gln Val Ser Leu Leu Ala Pro Glu Gln Thr Pro
385 390 395 400

Val Val Val His Val Cys Gly Leu Glu Met Pro Pro Asp Ala Val Glu
405 410 415

Ala Gly Gly Gly Met Glu Lys Thr Leu Pro Glu Pro Val Gly Thr Gln
420 425 430

Val Ser Met Glu Glu Ile Gln Asn Glu Ser Ala Cys Gly Leu Asp Val
435 440 445

Gly Glu Cys Glu Asn Arg Ala Arg Glu Met Pro Gly Val Trp Gly Ala
450 455 460

Gly Gly Ser Leu Lys Val Thr Ile Leu Gln Ser Ser Asp Ser Arg Ala
465 470 475 480

Phe Ser Thr Val Pro Leu Thr Pro Val Pro Arg Pro Ser Asp Ser Val
485 490 495

Ser Ser Thr Pro Ala Ala Thr Ser Thr Pro Ser Lys Gln Ala Leu Gln
500 505 510

Phe Phe Cys Tyr Ile Cys Lys Ala Ser Cys Ser Ser Gln Gln Glu Phe
515 520 525

Gln Asp His Met Ser Glu Pro Gln His Gln Gln Arg Leu Gly Glu Ile
530 535 540

Gln His Met Ser Gln Ala Cys Leu Leu Ser Leu Leu Pro Val Pro Arg
545 550 555 560

Asp Val Leu Glu Thr Glu Asp Glu Glu Pro Pro Pro Arg Arg Trp Cys
565 570 575

Asn Thr Cys Gln Leu Tyr Tyr Met Gly Asp Leu Ile Gln His Arg Arg
580 585 590

Thr Gln Asp His Lys Ile Ala Lys Gln Ser Leu Arg Pro Phe Cys Thr
595 600 605

Val Cys Asn Arg Tyr Phe Lys Thr Pro Arg Lys Phe Val Glu His Val
610 615 620

Lys Ser Gln Gly His Lys Asp Lys Ala Lys Glu Leu Lys Ser Leu Glu
625 630 635 640

Lys Glu Ile Ala Gly Gln Asp Glu Asp His Phe Ile Thr Val Asp Ala
645 650 655

Val Gly Cys Phe Glu Gly Asp Glu Glu Glu Glu Asp Asp Glu Asp
660 665 670

Glu Glu Glu Ile Glu Val Glu Glu Glu Leu Cys Lys Gln Val Arg Ser
675 680 685

Arg Asp Ile Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr Tyr Ser Pro
690 695 700

Asn Thr Ala Tyr Gly Val Asp Phe Leu Val Pro Val Met Gly Tyr Ile
705 710 715 720

Cys Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly Ala Gln Leu
725 730 735

Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln Lys Tyr Lys
740 745 750

Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser Arg Arg Cys
755 760 765

Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr Ser Ser Gly
770 775 780

Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro Ser Lys Val
785 790 795 800

Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser Thr Arg Leu
805 810 815

Lys Thr

<210> 35

<211> 820

<212> PRT

<213> Homo sapiens

<400> 35

Pro Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro Gln
1 5 10 15

Gln Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu Asn
20 25 30

Gly Ser Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly Asn
35 40 45

Leu Arg Gly Tyr Gly Met Ala Ser Pro Gly Leu Ala Ala Pro Ser Leu
50 55 60

Thr Pro Pro Gln Leu Ala Thr Pro Asn Leu Gln Gln Phe Phe Pro Gln
65 70 75 80

Ala Thr Arg Gln Ser Leu Leu Gly Pro Pro Pro Val Gly Val Pro Met
85 90 95

Asn Pro Ser Gln Phe Asn Leu Ser Gly Arg Asn Pro Gln Lys Gln Ala
100 105 110

Arg Thr Ser Ser Ser Thr Thr Pro Asn Arg Lys Thr Met Pro Val Glu
115 120 125

Asp Lys Ser Asp Pro Pro Glu Gly Ser Glu Glu Ala Ala Glu Pro Arg
130 135 140

Met Asp Thr Pro Glu Asp Gln Asp Leu Pro Pro Cys Pro Glu Asp Ile
145 150 155 160

Ala Lys Glu Lys Arg Thr Pro Ala Pro Glu Pro Glu Pro Cys Glu Ala
165 170 175

Ser Glu Leu Pro Ala Lys Arg Leu Arg Ser Ser Glu Glu Pro Thr Glu
180 185 190

Lys Glu Pro Pro Gly Gln Leu Gln Val Lys Ala Gln Pro Gln Ala Arg
195 200 205

Met Thr Val Pro Lys Gln Thr Gln Thr Pro Asp Leu Leu Pro Glu Ala
210 215 220

Leu Glu Ala Gln Val Leu Pro Arg Phe Gln Pro Arg Val Leu Gln Val
225 230 235 240

Gln Ala Gln Val Gln Ser Gln Thr Gln Pro Arg Ile Pro Ser Thr Asp
245 250 255

Thr Gln Val Gln Pro Lys Leu Gln Lys Gln Ala Gln Thr Gln Thr Ser
260 265 270

Pro Glu His Leu Val Leu Gln Gln Lys Gln Val Gln Pro Gln Leu Gln
275 280 285

Gln Glu Ala Glu Pro Gln Lys Gln Val Gln Pro Gln Val Gln Pro Gln
290 295 300

Ala His Ser Gln Gly Pro Arg Gln Val Gln Leu Gln Gln Glu Ala Glu
305 310 315 320

Pro Leu Lys Gln Val Gln Pro Gln Val Gln Pro Gln Ala His Ser Gln
325 330 335

Pro Pro Arg Gln Val Gln Leu Gln Leu Gln Lys Gln Val Gln Thr Gln
340 345 350

Thr Tyr Pro Gln Val His Thr Gln Ala Gln Pro Ser Val Gln Pro Gln
355 360 365

Glu His Pro Pro Ala Gln Val Ser Val Gln Pro Pro Glu Gln Thr His
370 375 380

Glu Gln Pro His Thr Gln Pro Gln Val Ser Leu Leu Ala Pro Glu Gln
385 390 395 400

Thr Pro Val Val Val His Val Cys Gly Leu Glu Met Pro Pro Asp Ala
405 410 415

Val Glu Ala Gly Gly Ser Met Glu Lys Thr Leu Pro Glu Pro Val Gly
420 425 430

Thr Gln Val Ser Met Glu Glu Ile Gln Asn Glu Ser Ala Cys Gly Leu
435 440 445

Asp Val Gly Glu Cys Glu Asn Arg Ala Arg Glu Met Pro Gly Val Trp
450 455 460

Gly Ala Gly Gly Ser Leu Lys Val Thr Ile Leu Gln Ser Ser Asp Ser
465 470 475 480

Arg Ala Phe Ser Thr Val Pro Leu Thr Pro Val Pro Arg Pro Ser Asp
485 490 495

Ser Val Ser Ser Thr Pro Ala Ala Thr Ser Thr Pro Ser Lys Gln Ala
500 505 510

Leu Gln Phe Phe Cys Tyr Ile Cys Lys Ala Ser Cys Ser Ser Gln Gln
515 520 525

Glu Phe Gln Asp His Met Ser Glu Pro Gln His Gln Gln Arg Leu Gly
530 535 540

Glu Ile Gln His Met Ser Gln Ala Cys Leu Leu Ser Leu Leu Pro Val
545 550 555 560

Pro Arg Asp Val Leu Glu Thr Glu Asp Glu Glu Pro Pro Pro Arg Arg
565 570 575

Trp Cys Asn Thr Cys Gln Leu Tyr Tyr Met Gly Asp Leu Ile Gln His
580 585 590

Arg Arg Thr Gln Asp His Arg Ile Ala Lys Gln Ser Leu Arg Pro Phe
595 600 605

Cys Thr Val Cys Asn Arg Tyr Phe Lys Thr Pro Arg Lys Phe Val Glu
610 615 620

His Val Lys Ser Gln Gly His Lys Asp Lys Ala Lys Glu Leu Lys Ser
625 630 635 640

Leu Glu Lys Glu Ile Ala Gly Gln Asp Glu Asp His Phe Ile Thr Val
645 650 655

Asp Ala Val Gly Cys Phe Glu Gly Asp Glu Glu Glu Glu Asp Asp
660 665 670

Glu Asp Glu Glu Glu Ile Glu Val Glu Glu Glu Leu Cys Lys Gln Val
675 680 685

Arg Ser Arg Asp Ile Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr Tyr
690 695 700

Ser Pro Asn Thr Ala Tyr Gly Val Asp Phe Leu Val Pro Val Met Gly
705 710 715 720

Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His Asn Asn Ser Gly Ala
725 730 735

Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln Lys
740 745 750

Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser Arg
755 760 765

Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr Ser
770 775 780

Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro Ser
785 790 795 800

Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser Thr
805 810 815

Arg Leu Lys Thr
820

<210> 36

<211> 414

<212> PRT

<213> Homo sapiens

<400> 36

Met Phe Ser Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln Gln
1 5 10 15

Leu Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln
20 25 30

Gln Gln Leu Leu Gln Leu Gln Leu Leu Gln Gln Ser Pro Pro Gln
35 40 45

Ala Pro Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro
50 55 60

Gln Gln Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu
65 70 75 80

Asn Gly Ser Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly
85 90 95

Asn Leu Arg Gly Tyr Gly Met Ala Ser Pro Gly Leu Ala Ala Pro Ser
100 105 110

Leu Thr Pro Pro Gln Leu Ala Thr Pro Asn Leu Gln Gln Phe Phe Pro
115 120 125

Gln Ala Thr Arg Gln Ser Leu Leu Gly Pro Pro Pro Val Gly Val Pro
130 135 140

Met Asn Pro Ser Gln Phe Asn Leu Ser Gly Arg Asn Pro Gln Lys Gln
145 150 155 160

Ala Arg Thr Ser Ser Ser Thr Thr Pro Asn Arg Lys Asp Ser Ser Ser
165 170 175

Gln Thr Met Pro Val Glu Asp Lys Ser Asp Pro Pro Glu Gly Ser Glu
180 185 190

Glu Ala Ala Glu Pro Arg Met Asp Thr Pro Glu Asp Gln Asp Leu Pro
195 200 205

Pro Cys Pro Glu Asp Ile Ala Lys Glu Lys Arg Thr Pro Ala Pro Glu
210 215 220

Pro Glu Pro Cys Glu Ala Ser Glu Leu Pro Ala Lys Arg Leu Arg Ser
225 230 235 240

Ser Glu Glu Pro Thr Glu Lys Glu Pro Pro Gly Gln Leu Gln Val Lys
245 250 255

Ala Gln Pro Gln Ala Arg Met Thr Val Pro Lys Gln Thr Gln Thr Pro
260 265 270

Asp Leu Leu Pro Glu Ala Leu Glu Ala Gln Val Leu Pro Arg Phe Gln
275 280 285

Pro Arg Val Leu Gln Val Gln Ala Gln Val Gln Ser Gln Thr Gln Pro
290 295 300

Arg Ile Pro Ser Thr Asp Thr Gln Val Gln Pro Lys Leu Gln Lys Gln
305 310 315 320

Ala Gln Thr Gln Thr Ser Pro Glu His Leu Val Leu Gln Gln Lys Gln
325 330 335

Val Gln Pro Gln Leu Gln Gln Glu Ala Glu Pro Gln Lys Gln Val Gln
340 345 350

Pro Gln Val Gln Pro Gln Ala His Ser Gln Gly Pro Arg Gln Val Gln
355 360 365

Leu Gln Gln Glu Ala Glu Pro Leu Lys Gln Val Gln Pro Gln Val Gln
370 375 380

Pro Gln Ala His Ser Gln Pro His Leu Pro Gln Val Leu Ser Gln Gln
385 390 395 400

Leu Arg Gly Thr Ala Leu Pro Leu Gln Val Pro Gly Pro Leu
405 410

<210> 37

<211> 75

<212> PRT

<213> Homo sapiens

<400> 37

Leu Gln Gln Gln Gln Gln Leu Gln Gln Leu Gln Gln Gln Gln Leu
1 5 10 15

Gln Gln Gln Gln Leu Gln Gln Gln Leu Leu Gln Leu Gln Gln Leu
20 25 30

Leu Gln Gln Ser Pro Pro Gln Ala Pro Leu Pro Met Ala Val Ser Arg
35 40 45

Gly Leu Pro Pro Gln Gln Pro Gln Gln Pro Leu Leu Asn Leu Gln Gly
50 55 60

Thr Asn Ser Ala Ser Leu Leu Asn Gly Ser Met
65 70 75

<210> 38

<211> 33

<212> PRT

<213> Homo sapiens

<400> 38

Gln Gln Leu Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln Gln Leu
1 5 10 15

Gln Gln Gln Gln Leu Leu Gln Leu Gln Gln Leu Leu Gln Gln Ser Pro
20 25 30

Pro

<210> 39

<211> 52

<212> PRT

<213> Homo sapiens

<400> 39

Met Phe Ser Gln Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln
1 5 10 15

Leu Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln
20 25 30

Gln Gln Leu Leu Gln Leu Gln Leu Leu Gln Gln Ser Pro Pro Gln
35 40 45

Ala Pro Leu Pro
50

<210> 40
<211> 26
<212> PRT
<213> Homo sapiens

<400> 40
Pro Pro Thr Pro Arg Arg Asp Val Phe Ala His Val Pro Val Gln Gly
1 5 10 15

Trp Ser Thr Ala Arg Leu Val Thr Asp Met
20 25

<210> 41
<211> 24
<212> PRT
<213> Homo sapiens

<400> 41
Gly Leu Asp Gln Phe Ala Met Pro Pro Ala Thr Tyr Asp Thr Ala Gly
1 5 10 15

Leu Thr Met Pro Thr Ala Thr Leu
20

<210> 42
<211> 56
<212> PRT
<213> Homo sapiens

<400> 42
Pro Gln Val Gln Pro Gln Ala His Ser Gln Gly Pro Arg Gln Val Gln
1 5 10 15

Leu Gln Gln Glu Ala Glu Pro Leu Lys Gln Val Gln Pro Gln Val Gln
20 25 30

Pro Gln Ala His Ser Gln Pro Pro Arg Gln Val Gln Leu Gln Leu Gln
35 40 45

Lys Gln Val Gln Thr Gln Thr Tyr
50 55

<210> 43

<211> 28

<212> PRT

<213> Homo sapiens

<400> 43

Pro Gln Val Gln Pro Gln Ala His Ser Gln Pro Pro Arg Gln Val Gln
1 5 10 15

Leu Gln Leu Gln Lys Gln Val Gln Thr Gln Thr Tyr
20 25

<210> 44

<211> 112

<212> PRT

<213> Homo sapiens

<400> 44

Gln Val Gln Ser Gln Thr Gln Pro Arg Ile Pro Ser Thr Asp Thr Gln
1 5 10 15

Val Gln Pro Lys Leu Gln Lys Gln Ala Gln Thr Gln Thr Ser Pro Glu
20 25 30

His Leu Val Leu Gln Gln Lys Gln Val Gln Pro Gln Leu Gln Gln Glu
35 40 45

Ala Glu Pro Gln Lys Gln Val Gln Pro Gln Val Gln Pro Gln Ala His
50 55 60

Ser Gln Gly Pro Arg Gln Val Gln Leu Gln Gln Glu Ala Glu Pro Leu
65 70 75 80

Lys Gln Val Gln Pro Gln Val Gln Pro Gln Ala His Ser Gln Pro Pro
85 90 95

Arg Gln Val Gln Leu Gln Leu Gln Lys Gln Val Gln Thr Gln Thr Tyr
100 105 110

<210> 45
<211> 2687
<212> DNA
<213> Mouse

<400> 45
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gctgctgcaa cagtccccac cacaggcctc cttgtccatt cctgtcagcc ggggcctccc 180
ccagcagtca tccccgcaac agcttctgag tctccagggc ctccactcga cctccctgct 240
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<210> 46

<211> 2922

<212> DNA

<213> Homo sapiens

<400> 46

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ccttgcgtgg acctcctcct gttggggtcc ccatgaaccc ttcccagttc aactttcag	600
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aggagtctgc	ctggaaactt	tgacatggtt	catgtttta	ctcaaaatcc	aataaaacaa	2880
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<210> 47

<211> 897

<212> PRT

<213> Homo sapiens

<400> 47

Met	Phe	Ser	Gln	Gln	Gln	Gln	Gln	Leu	Gln	Gln	Gln	Gln	Gln	Gln	Leu
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Gln	Gln	Leu	Gln	Gln	Gln	Gln	Leu	Gln							
			20				25								30

Gln	Leu	Leu	Gln	Leu	Gln	Gln	Leu	Gln	Gln	Ser	Pro	Pro	Gln	Ala
			35				40			45				

Pro	Leu	Pro	Met	Ala	Val	Ser	Arg	Gly	Leu	Pro	Pro	Gln	Gln	Pro	Gln
			50				55			60					

Gln	Pro	Leu	Leu	Asn	Leu	Gln	Gly	Thr	Asn	Ser	Ala	Ser	Leu	Leu	Asn
					65		70		75						80

Gly	Ser	Met	Leu	Gln	Arg	Ala	Leu	Leu	Gln	Gln	Leu	Gln	Gly	Leu	
					85			90							95

Asp	Gln	Phe	Ala	Met	Pro	Pro	Ala	Thr	Tyr	Asp	Thr	Ala	Gly	Leu	Thr
					100			105					110		

Met	Pro	Thr	Ala	Thr	Leu	Gly	Asn	Leu	Arg	Gly	Tyr	Gly	Met	Ala	Ser
					115			120				125			

Pro Gly Leu Ala Ala Pro Ser Leu Thr Pro Pro Gln Leu Ala Thr Pro
130 135 140

Asn Leu Gln Gln Phe Phe Pro Gln Ala Thr Arg Gln Ser Leu Leu Gly
145 150 155 160

Pro Pro Pro Val Gly Val Pro Met Asn Pro Ser Gln Phe Asn Leu Ser
165 170 175

Gly Arg Asn Pro Gln Lys Gln Ala Arg Thr Ser Ser Ser Thr Thr Pro
180 185 190

Asn Arg Lys Asp Ser Ser Ser Gln Thr Met Pro Val Glu Asp Lys Ser
195 200 205

Asp Pro Pro Glu Gly Ser Glu Glu Ala Ala Glu Pro Arg Met Asp Thr
210 215 220

Pro Glu Asp Gln Asp Leu Pro Pro Cys Pro Glu Asp Ile Ala Lys Glu
225 230 235 240

Lys Arg Thr Pro Ala Pro Glu Pro Glu Pro Cys Glu Ala Ser Glu Leu
245 250 255

Pro Ala Lys Arg Leu Arg Ser Ser Glu Glu Pro Thr Glu Lys Glu Pro
260 265 270

Pro Gly Gln Leu Gln Val Lys Ala Gln Pro Gln Ala Arg Met Thr Val
275 280 285

Pro Lys Gln Thr Gln Thr Pro Asp Leu Leu Pro Glu Ala Leu Glu Ala
290 295 300

Gln Val Leu Pro Arg Phe Gln Pro Arg Val Leu Gln Val Gln Ala Gln
305 310 315 320

Val Gln Ser Gln Thr Gln Pro Arg Ile Pro Ser Thr Asp Thr Gln Val
325 330 335

Gln Pro Lys Leu Gln Lys Gln Ala Gln Thr Gln Thr Ser Pro Glu His
340 345 350

Leu Val Leu Gln Gln Lys Gln Val Gln Pro Gln Leu Gln Gln Glu Ala
355 360 365

Glu Pro Gln Lys Gln Val Gln Pro Gln Val Gln Pro Gln Ala His Ser
370 375 380

Gln Gly Pro Arg Gln Val Gln Leu Gln Gln Glu Ala Glu Pro Leu Lys
385 390 395 400

Gln Val Gln Pro Gln Val Gln Pro Gln Ala His Ser Gln Pro Pro Arg
405 410 415

Gln Val Gln Leu Gln Leu Gln Lys Gln Val Gln Thr Gln Thr Tyr Pro
420 425 430

Gln Val His Thr Gln Ala Gln Pro Ser Val Gln Pro Gln Glu His Pro
435 440 445

Pro Ala Gln Val Ser Val Gln Pro Pro Glu Gln Thr His Glu Gln Pro
450 455 460

His Thr Gln Pro Gln Val Ser Leu Leu Ala Pro Glu Gln Thr Pro Val
465 470 475 480

Val Val His Val Cys Gly Leu Glu Met Pro Pro Asp Ala Val Glu Ala
485 490 495

Gly Gly Gly Met Glu Lys Thr Leu Pro Glu Pro Val Gly Thr Gln Val
500 505 510

Ser Met Glu Glu Ile Gln Asn Glu Ser Ala Cys Gly Leu Asp Val Gly
515 520 525

Glu Cys Glu Asn Arg Ala Arg Glu Met Pro Gly Val Trp Gly Ala Gly
530 535 540

Gly Ser Leu Lys Val Thr Ile Leu Gln Ser Ser Asp Ser Arg Ala Phe
545 550 555 560

Ser Thr Val Pro Leu Thr Pro Val Pro Arg Pro Ser Asp Ser Val Ser
565 570 575

Ser Thr Pro Ala Ala Thr Ser Thr Pro Ser Lys Gln Ala Leu Gln Phe
580 585 590

Phe Cys Tyr Ile Cys Lys Ala Ser Cys Ser Ser Gln Gln Glu Phe Gln
595 600 605

Asp His Met Ser Glu Pro Gln His Gln Gln Arg Leu Gly Glu Ile Gln
610 615 620

His Met Ser Gln Ala Cys Leu Leu Ser Leu Leu Pro Val Pro Arg Asp
625 630 635 640

Val Leu Glu Thr Glu Asp Glu Glu Pro Pro Pro Arg Arg Trp Cys Asn
645 650 655

Thr Cys Gln Leu Tyr Tyr Met Gly Asp Leu Ile Gln His Arg Arg Thr
660 665 670

Gln Asp His Lys Ile Ala Lys Gln Ser Leu Arg Pro Phe Cys Thr Val
675 680 685

Cys Asn Arg Tyr Phe Lys Thr Pro Arg Lys Phe Val Glu His Val Lys
690 695 700

Ser Gln Gly His Lys Asp Lys Ala Lys Glu Leu Lys Ser Leu Glu Lys
705 710 715 720

Glu Ile Ala Gly Gln Asp Glu Asp His Phe Ile Thr Val Asp Ala Val
725 730 735

Gly Cys Phe Glu Gly Asp Glu Glu Glu Glu Asp Asp Glu Asp Glu
740 745 750

Glu Glu Ile Glu Val Glu Glu Glu Leu Cys Lys Gln Val Arg Ser Arg
755 760 765

Asp Ile Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr Tyr Ser Pro Asn
770 775 780

Thr Ala Tyr Gly Val Asp Phe Leu Val Pro Val Met Gly Tyr Ile Cys
785 790 795 800

Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly Ala Gln Leu Ser
805 810 815

His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln Lys Tyr Lys Ala
820 825 830

Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser Arg Arg Cys Ala
835 840 845

Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr Ser Ser Gly Arg
850 855 860

Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro Ser Lys Val Thr
865 870 875 880

Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser Thr Arg Leu Lys
885 890 895

Thr

<210> 48

<211> 49

<212> PRT

<213> Homo sapiens

<400> 48

Met Phe Ser Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln Gln
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Leu Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln Leu Gln Gln
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Gln Gln Leu Leu Gln Leu Gln Leu Leu Gln Gln Ser Pro Pro Gln
35 40 45

Ala

<210> 49

<211> 215

<212> DNA

<213> Homo sapiens

<400> 49

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tccagcagct gctccagcag tccccaccac aggcc 215

<210> 50

<211> 101

<212> DNA

<213> Homo sapiens

<400> 50
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ttactgcagc tccaggcgt gctccagcag tccccaccac a 101

<210> 51
<211> 72
<212> DNA
<213> Homo sapiens

<400> 51
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acagcaacac tg 72

<210> 52
<211> 15
<212> DNA
<213> Homo sapiens

<400> 52
aggattcttc ttctc 15

<210> 53
<211> 86
<212> DNA
<213> Homo sapiens

<400> 53
ccacaggtgc agccccaggc acattcacag cccccaaggc aggtgcagct gcagctgcag 60
aaggcaggc agacacagac atatcc 86

<210> 54
<211> 168
<212> DNA
<213> Homo sapiens

<400> 54
ccacaggtac agccacagggc acattcacag ggcccaaggc aggtgcagct gcagcaggag 60
Page 56

gcagagccgc tgaaggcagg gcagccacag gtgcagcccc aggcacattc acagcccca 120
aggcaggtgc agctgcagct gcagaaggcag gtccagacac agacatat 168

<210> 55

<211> 336

<212> DNA

<213> Homo sapiens

<400> 55
caggtgcagt cacagactca gccgcggata ccatccacag acacccagg gcagccaaag 60
ctgcagaagc aggcgcaaac acagacctct ccagagcact tagtgctgca acagaaggcag 120
gtgcagccac agctgcagca ggaggcagag ccacagaagc aggtgcagcc acaggtacag 180
ccacaggcac attcacaggg cccaaggcag gtgcagctgc agcaggaggc agagccgctg 240
aagcaggtgc agccacagg gcagccccag gcacattcac agcccccaag gcaggtgcag 300
ctgcagctgc agaaggcagg cttagacacag acatat 336

<210> 56

<211> 24

<212> DNA

<213> Homo sapiens

<400> 56
gttggaggagg aactctgcaa gcag 24

<210> 57

<211> 78

<212> DNA

<213> Homo sapiens

<400> 57
gccacccaca ccacgaagag atgtttgc ccacgttcca gtgcaggggt ggagcacagc 60
ccggcttggta acagatat 78

<210> 58

<211> 863

<212> PRT

<213> Homo sapiens

<400> 58

Met Phe Ser Gln Gln Gln Gln Leu Gln Gln Gln Gln Ala Pro
1 5 10 15

Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro Gln Gln
20 25 30

Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu Asn Gly
35 40 45

Ser Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly Leu Asp
50 55 60

Gln Phe Ala Met Pro Pro Ala Thr Tyr Asp Thr Ala Gly Leu Thr Met
65 70 75 80

Pro Thr Ala Thr Leu Gly Asn Leu Arg Gly Tyr Gly Met Ala Ser Pro
85 90 95

Gly Leu Ala Ala Pro Ser Leu Thr Pro Pro Gln Leu Ala Thr Pro Asn
100 105 110

Leu Gln Gln Phe Phe Pro Gln Ala Thr Arg Gln Ser Leu Leu Gly Pro
115 120 125

Pro Pro Val Gly Val Pro Met Asn Pro Ser Gln Phe Asn Leu Ser Gly
130 135 140

Arg Asn Pro Gln Lys Gln Ala Arg Thr Ser Ser Ser Thr Thr Pro Asn
145 150 155 160

Arg Lys Asp Ser Ser Ser Gln Thr Met Pro Val Glu Asp Lys Ser Asp
165 170 175

Pro Pro Glu Gly Ser Glu Glu Ala Ala Glu Pro Arg Met Asp Thr Pro
180 185 190

Glu Asp Gln Asp Leu Pro Pro Cys Pro Glu Asp Ile Ala Lys Glu Lys
195 200 205

Arg Thr Pro Ala Pro Glu Pro Glu Pro Cys Glu Ala Ser Glu Leu Pro
210 215 220

Ala Lys Arg Leu Arg Ser Ser Glu Glu Pro Thr Glu Lys Glu Pro Pro
225 230 235 240

Gly Gln Leu Gln Val Lys Ala Gln Pro Gln Ala Arg Met Thr Val Pro
245 250 255

Lys Gln Thr Gln Thr Pro Asp Leu Leu Pro Glu Ala Leu Glu Ala Gln
260 265 270

Val Leu Pro Arg Phe Gln Pro Arg Val Leu Gln Val Gln Ala Gln Val
275 280 285

Gln Ser Gln Thr Gln Pro Arg Ile Pro Ser Thr Asp Thr Gln Val Gln
290 295 300

Pro Lys Leu Gln Lys Gln Ala Gln Thr Gln Thr Ser Pro Glu His Leu
305 310 315 320

Val Leu Gln Gln Lys Gln Val Gln Pro Gln Leu Gln Gln Glu Ala Glu
325 330 335

Pro Gln Lys Gln Val Gln Pro Gln Val Gln Pro Gln Ala His Ser Gln
340 345 350

Gly Pro Arg Gln Val Gln Leu Gln Gln Glu Ala Glu Pro Leu Lys Gln
355 360 365

Val Gln Pro Gln Val Gln Pro Gln Ala His Ser Gln Pro Pro Arg Gln
370 375 380

Val Gln Leu Gln Leu Gln Lys Gln Val Gln Thr Gln Thr Tyr Pro Gln
385 390 395 400

Val His Thr Gln Ala Gln Pro Ser Val Gln Pro Gln Glu His Pro Pro
405 410 415

Ala Gln Val Ser Val Gln Pro Pro Glu Gln Thr His Glu Gln Pro His
420 425 430

Thr Gln Pro Gln Val Ser Leu Leu Ala Pro Glu Gln Thr Pro Val Val
435 440 445

Val His Val Cys Gly Leu Glu Met Pro Pro Asp Ala Val Glu Ala Gly
450 455 460

Gly Gly Met Glu Lys Thr Leu Pro Glu Pro Val Gly Thr Gln Val Ser
465 470 475 480

Met Glu Glu Ile Gln Asn Glu Ser Ala Cys Gly Leu Asp Val Gly Glu
485 490 495

Cys Glu Asn Arg Ala Arg Glu Met Pro Gly Val Trp Gly Ala Gly Gly
500 505 510

Ser Leu Lys Val Thr Ile Leu Gln Ser Ser Asp Ser Arg Ala Phe Ser
515 520 525

Thr Val Pro Leu Thr Pro Val Pro Arg Pro Ser Asp Ser Val Ser Ser
530 535 540

Thr Pro Ala Ala Thr Ser Thr Pro Ser Lys Gln Ala Leu Gln Phe Phe
545 550 555 560

Cys Tyr Ile Cys Lys Ala Ser Cys Ser Ser Gln Gln Glu Phe Gln Asp
565 570 575

His Met Ser Glu Pro Gln His Gln Gln Arg Leu Gly Glu Ile Gln His
580 585 590

Met Ser Gln Ala Leu Leu Ser Leu Leu Pro Val Pro Arg Asp Val Leu
595 600 605

Glu Thr Glu Asp Glu Glu Pro Pro Pro Arg Arg Trp Cys Asn Thr Cys
610 615 620

Gln Leu Tyr Tyr Met Gly Asp Leu Ile Gln His Arg Arg Thr Gln Asp
625 630 635 640

His Lys Ile Ala Lys Gln Ser Leu Arg Pro Phe Cys Thr Val Cys Asn
645 650 655

Arg Tyr Phe Lys Thr Pro Arg Lys Phe Val Glu His Val Lys Ser Gln
660 665 670

Gly His Lys Asp Lys Ala Lys Glu Leu Lys Ser Leu Glu Lys Glu Ile
675 680 685

Ala Gly Gln Asp Glu Asp His Phe Ile Thr Val Asp Ala Val Gly Cys
690 695 700

Phe Glu Gly Asp Glu Glu Glu Glu Asp Asp Glu Asp Glu Glu Glu
705 710 715 720

Ile Glu Val Glu Glu Glu Leu Cys Lys Gln Val Arg Ser Arg Asp Ile
725 730 735

Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr Tyr Ser Pro Asn Thr Ala
740 745 750

Tyr Gly Val Asp Phe Leu Val Pro Val Met Gly Tyr Ile Cys Arg Ile
755 760 765

Cys His Lys Phe Tyr His Ser Asn Ser Gly Ala Gln Leu Ser His Cys
770 775 780

Lys Ser Leu Gly His Phe Glu Asn Leu Gln Lys Tyr Lys Ala Ala Lys
785 790 795 800

Asn Pro Ser Pro Thr Thr Arg Pro Val Ser Arg Arg Cys Ala Ile Asn
805 810 815

Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr Ser Ser Gly Arg Pro Pro
820 825 830

Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro Ser Lys Val Thr Ala Arg
835 840 845

Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser Thr Arg Leu Lys Thr
850 855 860

<210> 59

<211> 873

<212> PRT

<213> Homo sapiens

<400> 59

Met Phe Ser Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln Leu
1 5 10 15

Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln
20 25 30

Gln Leu Leu Gln Leu Gln Gln Leu Gln Gln Ser Pro Pro Gln Ala
35 40 45

Pro Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro Gln
50 55 60

Gln Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu Asn
65 70 75 80

Gly Ser Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly Asn
85 90 95

Leu Arg Gly Tyr Gly Met Ala Ser Pro Gly Leu Ala Ala Pro Ser Leu
100 105 110

Thr Pro Pro Gln Leu Ala Thr Pro Asn Leu Gln Gln Phe Phe Pro Gln
115 120 125

Ala Thr Arg Gln Ser Leu Leu Gly Pro Pro Pro Val Gly Val Pro Met
130 135 140

Asn Pro Ser Gln Phe Asn Leu Ser Gly Arg Asn Pro Gln Lys Gln Ala
145 150 155 160

Arg Thr Ser Ser Ser Thr Thr Pro Asn Arg Lys Asp Ser Ser Ser Gln
165 170 175

Thr Met Pro Val Glu Asp Lys Ser Asp Pro Pro Glu Gly Ser Glu Glu
180 185 190

Ala Ala Glu Pro Arg Met Asp Thr Pro Glu Asp Gln Asp Leu Pro Pro
195 200 205

Cys Pro Glu Asp Ile Ala Lys Glu Lys Arg Thr Pro Ala Pro Glu Pro
210 215 220

Glu Pro Cys Glu Ala Ser Glu Leu Pro Ala Lys Arg Leu Arg Ser Ser
225 230 235 240

Glu Glu Pro Thr Glu Lys Glu Pro Pro Gly Gln Leu Gln Val Lys Ala
245 250 255

Gln Pro Gln Ala Arg Met Thr Val Pro Lys Gln Thr Gln Thr Pro Asp
260 265 270

Leu Leu Pro Glu Ala Leu Glu Ala Gln Val Leu Pro Arg Phe Gln Pro
275 280 285

Arg Val Leu Gln Val Gln Ala Gln Val Gln Ser Gln Thr Gln Pro Arg
290 295 300

Ile Pro Ser Thr Asp Thr Gln Val Gln Pro Lys Leu Gln Lys Gln Ala
305 310 315 320

Gln Thr Gln Thr Ser Pro Glu His Leu Val Leu Gln Gln Lys Gln Val
325 330 335

Gln Pro Gln Leu Gln Gln Glu Ala Glu Pro Gln Lys Gln Val Gln Pro
340 345 350

Gln Val Gln Pro Gln Ala His Ser Gln Gly Pro Arg Gln Val Gln Leu
355 360 365

Gln Gln Glu Ala Glu Pro Leu Lys Gln Val Gln Pro Gln Val Gln Pro
370 375 380

Gln Ala His Ser Gln Pro Pro Arg Gln Val Gln Leu Gln Leu Gln Lys
385 390 395 400

Gln Val Gln Thr Gln Thr Tyr Pro Gln Val His Thr Gln Ala Gln Pro
405 410 415

Ser Val Gln Pro Gln Glu His Pro Pro Ala Gln Val Ser Val Gln Pro
420 425 430

Pro Glu Gln Thr His Glu Gln Pro His Thr Gln Pro Gln Val Ser Leu
435 440 445

Leu Ala Pro Glu Gln Thr Pro Val Val Val His Val Cys Gly Leu Glu
450 455 460

Met Pro Pro Asp Ala Val Glu Ala Gly Gly Met Glu Lys Thr Leu
465 470 475 480

Pro Glu Pro Val Gly Thr Gln Val Ser Met Glu Glu Ile Gln Asn Glu
485 490 495

Ser Ala Cys Gly Leu Asp Val Gly Glu Cys Glu Asn Arg Ala Arg Glu
500 505 510

Met Pro Gly Val Trp Gly Ala Gly Gly Ser Leu Lys Val Thr Ile Leu
515 520 525

Gln Ser Ser Asp Ser Arg Ala Phe Ser Thr Val Pro Leu Thr Pro Val
530 535 540

Pro Arg Pro Ser Asp Ser Val Ser Ser Thr Pro Ala Ala Thr Ser Thr
545 550 555 560

Pro Ser Lys Gln Ala Leu Gln Phe Phe Cys Tyr Ile Cys Lys Ala Ser
565 570 575

Cys Ser Ser Gln Gln Glu Phe Gln Asp His Met Ser Glu Pro Gln His
580 585 590

Gln Gln Arg Leu Gly Glu Ile Gln His Met Ser Gln Ala Cys Leu Leu
595 600 605

Ser Leu Leu Pro Val Pro Arg Asp Val Leu Glu Thr Glu Asp Glu Glu
610 615 620 625

Pro Pro Pro Arg Arg Trp Cys Asn Thr Cys Gln Leu Tyr Tyr Met Gly
630 635 640

Asp Leu Ile Gln His Arg Arg Thr Gln Asp His Lys Ile Ala Lys Gln
645 650 655

Ser Leu Arg Pro Phe Cys Thr Val Cys Asn Arg Tyr Phe Lys Thr Pro
660 665 670

Arg Lys Phe Val Glu His Val Lys Ser Gln Gly His Lys Asp Lys Ala
675 680 685

Lys Glu Leu Lys Ser Leu Glu Lys Glu Ile Ala Gly Gln Asp Glu Asp
690 695 700

His Phe Ile Thr Val Asp Ala Val Gly Cys Phe Glu Gly Asp Glu Glu
705 710 715 720

Glu Glu Glu Asp Asp Glu Asp Glu Glu Ile Glu Val Glu Glu Glu
725 730 735

Leu Cys Lys Gln Val Arg Ser Arg Asp Ile Ser Arg Glu Glu Trp Lys
740 745 750

Gly Ser Glu Thr Tyr Ser Pro Asn Thr Ala Tyr Gly Val Asp Phe Leu
755 760 765

Val Pro Val Met Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His
770 775 780

Ser Asn Ser Gly Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe
785 790 795 800

Glu Asn Leu Gln Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr
805 810 815

Arg Pro Val Ser Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr
820 825 830

Ala Leu Phe Thr Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln
835 840 845

Asp Lys Thr Pro Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu
850 855 860

Pro Arg Arg Ser Thr Arg Leu Lys Thr
865 870

<210> 60

<211> 892

<212> PRT

<213> Homo sapiens

<400> 60

Met Phe Ser Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln Leu
1 5 10 15

Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln Gln
20 25 30

Gln Leu Leu Gln Leu Gln Gln Leu Gln Gln Ser Pro Pro Gln Ala
35 40 45

Pro Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro Gln
50 55 60

Gln Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu Asn
65 70 75 80

Gly Ser Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly Leu
85 90 95

Asp Gln Phe Ala Met Pro Pro Ala Thr Tyr Asp Thr Ala Gly Leu Thr
100 105 110

Met Pro Thr Ala Thr Leu Gly Asn Leu Arg Gly Tyr Gly Met Ala Ser
115 120 125

Pro Gly Leu Ala Ala Pro Ser Leu Thr Pro Pro Gln Leu Ala Thr Pro
130 135 140

Asn Leu Gln Gln Phe Phe Pro Gln Ala Thr Arg Gln Ser Leu Leu Gly
145 150 155 160

Pro Pro Pro Val Gly Val Pro Met Asn Pro Ser Gln Phe Asn Leu Ser
165 170 175

Gly Arg Asn Pro Gln Lys Gln Ala Arg Thr Ser Ser Ser Thr Thr Pro
180 185 190

Asn Arg Lys Thr Met Pro Val Glu Asp Lys Ser Asp Pro Pro Glu Gly
195 200 205

Ser Glu Glu Ala Ala Glu Pro Arg Met Asp Thr Pro Glu Asp Gln Asp
210 215 220

Leu Pro Pro Cys Pro Glu Asp Ile Ala Lys Glu Lys Arg Thr Pro Ala
225 230 235 240

Pro Glu Pro Glu Pro Cys Glu Ala Ser Glu Leu Pro Ala Lys Arg Leu
245 250 255

Arg Ser Ser Glu Glu Pro Thr Glu Lys Glu Pro Pro Gly Gln Leu Gln
260 265 270

Val Lys Ala Gln Pro Gln Ala Arg Met Thr Val Pro Lys Gln Thr Gln
275 280 285

Thr Pro Asp Leu Leu Pro Glu Ala Leu Glu Ala Gln Val Leu Pro Arg
290 295 300

Phe Gln Pro Arg Val Leu Gln Val Gln Ala Gln Val Gln Ser Gln Thr
305 310 315 320

Gln Pro Arg Ile Pro Ser Thr Asp Thr Gln Val Gln Pro Lys Leu Gln
325 330 335

Lys Gln Ala Gln Thr Gln Thr Ser Pro Glu His Leu Val Leu Gln Gln
340 345 350

Lys Gln Val Gln Pro Gln Leu Gln Gln Glu Ala Glu Pro Gln Lys Gln
355 360 365

Val Gln Pro Gln Val Gln Pro Gln Ala His Ser Gln Gly Pro Arg Gln
370 375 380

Val Gln Leu Gln Gln Glu Ala Glu Pro Leu Lys Gln Val Gln Pro Gln
385 390 395 400

Val Gln Pro Gln Ala His Ser Gln Pro Pro Arg Gln Val Gln Leu Gln
405 410 415

Leu Gln Lys Gln Val Gln Thr Gln Thr Tyr Pro Gln Val His Thr Gln
420 425 430

Ala Gln Pro Ser Val Gln Pro Gln Glu His Pro Pro Ala Gln Val Ser
435 440 445

Val Gln Pro Pro Glu Gln Thr His Glu Gln Pro His Thr Gln Pro Gln
450 455 460

Val Ser Leu Leu Ala Pro Glu Gln Thr Pro Val Val Val His Val Cys
465 470 475 480

Gly Leu Glu Met Pro Pro Asp Ala Val Glu Ala Gly Gly Met Glu
485 490 495

Lys Thr Leu Pro Glu Pro Val Gly Thr Gln Val Ser Met Glu Glu Ile
500 505 510

Gln Asn Glu Ser Ala Cys Gly Leu Asp Val Gly Glu Cys Glu Asn Arg
515 520 525

Ala Arg Glu Met Pro Gly Val Trp Gly Ala Gly Gly Ser Leu Lys Val
530 535 540

Thr Ile Leu Gln Ser Ser Asp Ser Arg Ala Phe Ser Thr Val Pro Leu
545 550 555 560

Thr Pro Val Pro Arg Pro Ser Asp Ser Val Ser Ser Thr Pro Ala Ala
565 570 575

Thr Ser Thr Pro Ser Lys Gln Ala Leu Gln Phe Phe Cys Tyr Ile Cys
580 585 590

Lys Ala Ser Cys Ser Ser Gln Gln Glu Phe Gln Asp His Met Ser Glu
595 600 605

Pro Gln His Gln Gln Arg Leu Gly Glu Ile Gln His Met Ser Gln Ala
610 615 620

Cys Leu Leu Ser Leu Leu Pro Val Pro Arg Asp Val Leu Glu Thr Glu
625 630 635 640

Asp Glu Glu Pro Pro Arg Arg Trp Cys Asn Thr Cys Gln Leu Tyr
645 650 655

Tyr Met Gly Asp Leu Ile Gln His Arg Arg Thr Gln Asp His Lys Ile
660 665 670

Ala Lys Gln Ser Leu Arg Pro Phe Cys Thr Val Cys Asn Arg Tyr Phe
675 680 685

Lys Thr Pro Arg Lys Phe Val Glu His Val Lys Ser Gln Gly His Lys
690 695 700

Asp Lys Ala Lys Glu Leu Lys Ser Leu Glu Lys Glu Ile Ala Gly Gln
705 710 715 720

Asp Glu Asp His Phe Ile Thr Val Asp Ala Val Gly Cys Phe Glu Gly
725 730 735

Asp Glu Glu Glu Glu Asp Asp Glu Asp Glu Glu Glu Ile Glu Val
740 745 750

Glu Glu Glu Leu Cys Lys Gln Val Arg Ser Arg Asp Ile Ser Arg Glu
755 760 765

Glu Trp Lys Gly Ser Glu Thr Tyr Ser Pro Asn Thr Ala Tyr Gly Val
770 775 780

Asp Phe Leu Val Pro Val Met Gly Tyr Ile Cys Arg Ile Cys His Lys
785 790 795 800

Phe Tyr His Ser Asn Ser Gly Ala Gln Leu Ser His Cys Lys Ser Leu
805 810 815

Gly His Phe Glu Asn Leu Gln Lys Tyr Lys Ala Ala Lys Asn Pro Ser
820 825 830

Pro Thr Thr Arg Pro Val Ser Arg Arg Cys Ala Ile Asn Ala Arg Asn
835 840 845

Ala Leu Thr Ala Leu Phe Thr Ser Ser Gly Arg Pro Pro Ser Gln Pro
850 855 860

Asn Thr Gln Asp Lys Thr Pro Ser Lys Val Thr Ala Arg Pro Ser Gln
865 870 875 880

Pro Pro Leu Pro Arg Arg Ser Thr Arg Leu Lys Thr
885 890

<210> 61

<211> 868

<212> PRT

<213> Homo sapiens

<400> 61

Met Phe Ser Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln Leu
1 5 10 15

Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln Gln
20 25 30

Gln Leu Leu Gln Leu Gln Leu Gln Ser Pro Pro Gln Ala
35 40 45

Pro Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro Gln
50 55 60

Gln Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu Asn
65 70 75 80

Gly Ser Met Leu Gln Arg Ala Leu Leu Gln Gln Leu Gln Gly Leu
85 90 95

Asp Gln Phe Ala Met Pro Pro Ala Thr Tyr Asp Thr Ala Gly Leu Thr
100 105 110

Met Pro Thr Ala Thr Leu Gly Asn Leu Arg Gly Tyr Gly Met Ala Ser
115 120 125

Pro Gly Leu Ala Ala Pro Ser Leu Thr Pro Pro Gln Leu Ala Thr Pro
130 135 140

Asn Leu Gln Gln Phe Phe Pro Gln Ala Thr Arg Gln Ser Leu Leu Gly
145 150 155 160

Pro Pro Pro Val Gly Val Pro Met Asn Pro Ser Gln Phe Asn Leu Ser
165 170 175

Gly Arg Asn Pro Gln Lys Gln Ala Arg Thr Ser Ser Ser Thr Thr Pro
180 185 190

Asn Arg Lys Asp Ser Ser Ser Gln Thr Met Pro Val Glu Asp Lys Ser
195 200 205

Asp Pro Pro Glu Gly Ser Glu Glu Ala Ala Glu Pro Arg Met Asp Thr
210 215 220

Pro Glu Asp Gln Asp Leu Pro Pro Cys Pro Glu Asp Ile Ala Lys Glu
225 230 235 240

Lys Arg Thr Pro Ala Pro Glu Pro Glu Pro Cys Glu Ala Ser Glu Leu
245 250 255

Pro Ala Lys Arg Leu Arg Ser Ser Glu Glu Pro Thr Glu Lys Glu Pro
260 265 270

Pro Gly Gln Leu Gln Val Lys Ala Gln Pro Gln Ala Arg Met Thr Val
275 280 285

Pro Lys Gln Thr Gln Thr Pro Asp Leu Leu Pro Glu Ala Leu Glu Ala
290 295 300

Gln Val Leu Pro Arg Phe Gln Pro Arg Val Leu Gln Val Gln Ala Gln
305 310 315 320

Val Gln Ser Gln Thr Gln Pro Arg Ile Pro Ser Thr Asp Thr Gln Val
325 330 335

Gln Pro Lys Leu Gln Lys Gln Ala Gln Thr Gln Thr Ser Pro Glu His
340 345 350

Leu Val Leu Gln Gln Lys Gln Val Gln Pro Gln Leu Gln Gln Glu Ala
355 360 365

Glu Pro Gln Lys Gln Val Gln Pro Gln Val Gln Pro Gln Ala His Ser
370 375 380

Gln Gly Pro Arg Gln Val Gln Leu Gln Gln Glu Ala Glu Pro Leu Lys
385 390 395 400

Gln Val Gln Gln Val His Thr Gln Ala Gln Pro Ser Val Gln Pro Gln
405 410 415

Glu His Pro Pro Ala Gln Val Ser Val Gln Pro Pro Glu Gln Thr His
420 425 430

Glu Gln Pro His Thr Gln Pro Gln Val Ser Leu Leu Ala Pro Glu Gln
435 440 445

Thr Pro Val Val Val His Val Cys Gly Leu Glu Met Pro Pro Asp Ala
450 455 460

Val Glu Ala Gly Gly Met Glu Lys Thr Leu Pro Glu Pro Val Gly
465 470 475 480

Thr Gln Val Ser Met Glu Glu Ile Gln Asn Glu Ser Ala Cys Gly Leu
485 490 495

Asp Val Gly Glu Cys Glu Asn Arg Ala Arg Glu Met Pro Gly Val Trp
500 505 510

Gly Ala Gly Gly Ser Leu Lys Val Thr Ile Leu Gln Ser Ser Asp Ser
515 520 525

Arg Ala Phe Ser Thr Val Pro Leu Thr Pro Val Pro Arg Pro Ser Asp
530 535 540

Ser Val Ser Ser Thr Pro Ala Ala Thr Ser Thr Pro Ser Lys Gln Ala
545 550 555 560

Leu Gln Phe Phe Cys Tyr Ile Cys Lys Ala Ser Cys Ser Ser Gln Gln
565 570 575

Glu Phe Gln Asp His Met Ser Glu Pro Gln His Gln Gln Arg Leu Gly
580 585 590

Glu Ile Gln His Met Ser Gln Ala Cys Leu Leu Ser Leu Leu Pro Val
595 600 605

Pro Arg Asp Val Leu Glu Thr Glu Asp Glu Glu Pro Pro Pro Arg Arg
610 615 620

Trp Cys Asn Thr Cys Gln Leu Tyr Tyr Met Gly Asp Leu Ile Gln His
625 630 635 640

Arg Arg Thr Gln Asp His Lys Ile Ala Lys Gln Ser Leu Arg Pro Phe
645 650 655

Cys Thr Val Cys Asn Arg Tyr Phe Lys Thr Pro Arg Lys Phe Val Glu
660 665 670

His Val Lys Ser Gln Gly His Lys Asp Lys Ala Lys Glu Leu Lys Ser
675 680 685

Leu Glu Lys Glu Ile Ala Gly Gln Asp Glu Asp His Phe Ile Thr Val
690 695 700

Asp Ala Val Gly Cys Phe Glu Gly Asp Glu Glu Glu Glu Asp Asp
705 710 715 720

Glu Asp Glu Glu Glu Ile Glu Val Glu Glu Glu Leu Cys Lys Gln Val
725 730 735

Arg Ser Arg Asp Ile Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr Tyr
740 745 750

Ser Pro Asn Thr Ala Tyr Gly Val Asp Phe Leu Val Pro Val Met Gly
755 760 765

Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly Ala
770 775 780

Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln Lys
785 790 795 800

Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser Arg
805 810 815

Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr Ser
820 825 830

Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro Ser
835 840 845

Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser Thr
850 855 860

Arg Leu Lys Thr
865

<210> 62

<211> 841

<212> PRT

<213> Homo sapiens

<400> 62

Met Phe Ser Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln Leu
1 5 10 15

Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln Gln
20 25 30

Gln Leu Leu Gln Leu Gln Gln Leu Gln Gln Ser Pro Pro Gln Ala
35 40 45

Pro Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro Gln
50 55 60

Gln Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu Asn
65 70 75 80

Gly Ser Met Leu Gln Arg Ala Leu Leu Gln Gln Leu Gln Gly Leu
85 90 95

Asp Gln Phe Ala Met Pro Pro Ala Thr Tyr Asp Thr Ala Gly Leu Thr
100 105 110

Met Pro Thr Ala Thr Leu Gly Asn Leu Arg Gly Tyr Gly Met Ala Ser
115 120 125

Pro Gly Leu Ala Ala Pro Ser Leu Thr Pro Pro Gln Leu Ala Thr Pro
130 135 140

Asn Leu Gln Gln Phe Phe Pro Gln Ala Thr Arg Gln Ser Leu Leu Gly
145 150 155 160

Pro Pro Pro Val Gly Val Pro Met Asn Pro Ser Gln Phe Asn Leu Ser
165 170 175

Gly Arg Asn Pro Gln Lys Gln Ala Arg Thr Ser Ser Ser Thr Thr Pro
180 185 190

Asn Arg Lys Asp Ser Ser Ser Gln Thr Met Pro Val Glu Asp Lys Ser
195 200 205

Asp Pro Pro Glu Gly Ser Glu Glu Ala Ala Glu Pro Arg Met Asp Thr
210 215 220

Pro Glu Asp Gln Asp Leu Pro Pro Cys Pro Glu Asp Ile Ala Lys Glu
225 230 235 240

Lys Arg Thr Pro Ala Pro Glu Pro Glu Pro Cys Glu Ala Ser Glu Leu
245 250 255

Pro Ala Lys Arg Leu Arg Ser Ser Glu Glu Pro Thr Glu Lys Glu Pro
260 265 270

Pro Gly Gln Leu Gln Val Lys Ala Gln Pro Gln Ala Arg Met Thr Val
275 280 285

Pro Lys Gln Thr Gln Thr Pro Asp Leu Leu Pro Glu Ala Leu Glu Ala
290 295 300

Gln Val Leu Pro Arg Phe Gln Pro Arg Val Leu Gln Val Gln Ala Gln
305 310 315 320

Val Gln Ser Gln Thr Gln Pro Arg Ile Pro Ser Thr Asp Thr Gln Val
325 330 335

Gln Pro Lys Leu Gln Lys Gln Ala Gln Thr Gln Thr Ser Pro Glu His
340 345 350

Leu Val Leu Gln Gln Lys Gln Val Gln Pro Gln Leu Gln Gln Glu Ala
355 360 365

Glu Pro Gln Lys Gln Val Gln Pro Gln Val His Thr Gln Ala Gln Pro
370 375 380

Ser Val Gln Pro Gln Glu His Pro Pro Ala Gln Val Ser Val Gln Pro
385 390 395 400

Pro Glu Gln Thr His Glu Gln Pro His Thr Gln Pro Gln Val Ser Leu
405 410 415

Leu Ala Pro Glu Gln Thr Pro Val Val Val His Val Cys Gly Leu Glu
420 425 430

Met Pro Pro Asp Ala Val Glu Ala Gly Gly Met Glu Lys Thr Leu
435 440 445

Pro Glu Pro Val Gly Thr Gln Val Ser Met Glu Glu Ile Gln Asn Glu
450 455 460

Ser Ala Cys Gly Leu Asp Val Gly Glu Cys Glu Asn Arg Ala Arg Glu
465 470 475 480

Met Pro Gly Val Trp Gly Ala Gly Gly Ser Leu Lys Val Thr Ile Leu
485 490 495

Gln Ser Ser Asp Ser Arg Ala Phe Ser Thr Val Pro Leu Thr Pro Val
500 505 510

Pro Arg Pro Ser Asp Ser Val Ser Ser Thr Pro Ala Ala Thr Ser Thr
515 520 525

Pro Ser Lys Gln Ala Leu Gln Phe Phe Cys Tyr Ile Cys Lys Ala Ser
530 535 540

Cys Ser Ser Gln Gln Glu Phe Gln Asp His Met Ser Glu Pro Gln His
545 550 555 560

Gln Gln Arg Leu Gly Glu Ile Gln His Met Ser Gln Ala Cys Leu Leu
565 570 575

Ser Leu Leu Pro Val Pro Arg Asp Val Leu Glu Thr Glu Asp Glu Glu
580 585 590

Pro Pro Pro Arg Arg Trp Cys Asn Thr Cys Gln Leu Tyr Tyr Met Gly
595 600 605

Asp Leu Ile Gln His Arg Arg Thr Gln Asp His Lys Ile Ala Lys Gln
610 615 620

Ser Leu Arg Pro Phe Cys Thr Val Cys Asn Arg Tyr Phe Lys Thr Pro
625 630 635 640

Arg Lys Phe Val Glu His Val Lys Ser Gln Gly His Lys Asp Lys Ala
645 650 655

Lys Glu Leu Lys Ser Leu Glu Lys Glu Ile Ala Gly Gln Asp Glu Asp
660 665 670

His Phe Ile Thr Val Asp Ala Val Gly Cys Phe Glu Gly Asp Glu Glu
675 680 685

Glu Glu Glu Asp Asp Glu Asp Glu Glu Glu Ile Glu Val Glu Glu Glu
690 695 700

Leu Cys Lys Gln Val Arg Ser Arg Asp Ile Ser Arg Glu Glu Trp Lys
705 710 715 720

Gly Ser Glu Thr Tyr Ser Pro Asn Thr Ala Tyr Gly Val Asp Phe Leu
725 730 735

Val Pro Val Met Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His
740 745 750

Ser Asn Ser Gly Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe
755 760 765

Glu Asn Leu Gln Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr
770 775 780

Arg Pro Val Ser Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr
785 790 795 800

Ala Leu Phe Thr Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln
805 810 815

Asp Lys Thr Pro Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu
820 825 830

Pro Arg Arg Ser Thr Arg Leu Lys Thr
835 840

<210> 63

<211> 785

<212> PRT

<213> Homo sapiens

<400> 63

Met Phe Ser Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln Leu
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Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln Gln
20 25 30

Gln Leu Leu Gln Leu Gln Gln Leu Gln Ser Pro Pro Gln Ala
35 40 45

Pro Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro Gln
50 55 60

Gln Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu Asn
65 70 75 80

Gly Ser Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly Leu
85 90 95

Asp Gln Phe Ala Met Pro Pro Ala Thr Tyr Asp Thr Ala Gly Leu Thr
100 105 110

Met Pro Thr Ala Thr Leu Gly Asn Leu Arg Gly Tyr Gly Met Ala Ser
115 120 125

Pro Gly Leu Ala Ala Pro Ser Leu Thr Pro Pro Gln Leu Ala Thr Pro
130 135 140

Asn Leu Gln Gln Phe Phe Pro Gln Ala Thr Arg Gln Ser Leu Leu Gly
145 150 155 160

Pro Pro Pro Val Gly Val Pro Met Asn Pro Ser Gln Phe Asn Leu Ser
165 170 175

Gly Arg Asn Pro Gln Lys Gln Ala Arg Thr Ser Ser Ser Thr Thr Pro
180 185 190

Asn Arg Lys Asp Ser Ser Ser Gln Thr Met Pro Val Glu Asp Lys Ser
195 200 205

Asp Pro Pro Glu Gly Ser Glu Glu Ala Ala Glu Pro Arg Met Asp Thr
210 215 220

Pro Glu Asp Gln Asp Leu Pro Pro Cys Pro Glu Asp Ile Ala Lys Glu
225 230 235 240

Lys Arg Thr Pro Ala Pro Glu Pro Glu Pro Cys Glu Ala Ser Glu Leu
245 250 255

Pro Ala Lys Arg Leu Arg Ser Ser Glu Glu Pro Thr Glu Lys Glu Pro
260 265 270

Pro Gly Gln Leu Gln Val Lys Ala Gln Pro Gln Ala Arg Met Thr Val
275 280 285

Pro Lys Gln Thr Gln Thr Pro Asp Leu Leu Pro Glu Ala Leu Glu Ala
290 295 300

Gln Val Leu Pro Arg Phe Gln Pro Arg Val Leu Gln Val Gln Ala Pro
305 310 315 320

Gln Val His Thr Gln Ala Gln Pro Ser Val Gln Pro Gln Glu His Pro
325 330 335

Pro Ala Gln Val Ser Val Gln Pro Pro Glu Gln Thr His Glu Gln Pro
340 345 350

His Thr Gln Pro Gln Val Ser Leu Leu Ala Pro Glu Gln Thr Pro Val
355 360 365

Val Val His Val Cys Gly Leu Glu Met Pro Pro Asp Ala Val Glu Ala
370 375 380

Gly Gly Gly Met Glu Lys Thr Leu Pro Glu Pro Val Gly Thr Gln Val
385 390 395 400

Ser Met Glu Glu Ile Gln Asn Glu Ser Ala Cys Gly Leu Asp Val Gly
405 410 415

Glu Cys Glu Asn Arg Ala Arg Glu Met Pro Gly Val Trp Gly Ala Gly
420 425 430

Gly Ser Leu Lys Val Thr Ile Leu Gln Ser Ser Asp Ser Arg Ala Phe
435 440 445

Ser Thr Val Pro Leu Thr Pro Val Pro Arg Pro Ser Asp Ser Val Ser
450 455 460

Ser Thr Pro Ala Ala Thr Ser Thr Pro Ser Lys Gln Ala Leu Gln Phe
465 470 475 480

Phe Cys Tyr Ile Cys Lys Ala Ser Cys Ser Ser Gln Gln Glu Phe Gln
485 490 495

Asp His Met Ser Glu Pro Gln His Gln Gln Arg Leu Gly Glu Ile Gln
500 505 510

His Met Ser Gln Ala Cys Leu Leu Ser Leu Leu Pro Val Pro Arg Asp
515 520 525

Val Leu Glu Thr Glu Asp Glu Glu Pro Pro Pro Arg Arg Trp Cys Asn
530 535 540

Thr Cys Gln Leu Tyr Tyr Met Gly Asp Leu Ile Gln His Arg Arg Thr
545 550 555 560

Gln Asp His Lys Ile Ala Lys Gln Ser Leu Arg Pro Phe Cys Thr Val
565 570 575

Cys Asn Arg Tyr Phe Lys Thr Pro Arg Lys Phe Val Glu His Val Lys
580 585 590

Ser Gln Gly His Lys Asp Lys Ala Lys Glu Leu Lys Ser Leu Glu Lys
595 600 605

Glu Ile Ala Gly Gln Asp Glu Asp His Phe Ile Thr Val Asp Ala Val
610 615 620

Gly Cys Phe Glu Gly Asp Glu Glu Glu Glu Asp Asp Glu Asp Glu
625 630 635 640

Glu Glu Ile Glu Val Glu Glu Glu Leu Cys Lys Gln Val Arg Ser Arg
645 650 655

Asp Ile Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr Tyr Ser Pro Asn
660 665 670

Thr Ala Tyr Gly Val Asp Phe Leu Val Pro Val Met Gly Tyr Ile Cys
675 680 685

Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly Ala Gln Leu Ser
690 695 700

His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln Lys Tyr Lys Ala
705 710 715 720

Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser Arg Arg Cys Ala
725 730 735

Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr Ser Ser Gly Arg
740 745 750

Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro Ser Lys Val Thr
755 760 765

Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser Thr Arg Leu Lys
770 775 780

Thr
785

<210> 64

<211> 889

<212> PRT

<213> Homo sapiens

<400> 64

Met Phe Ser Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln Leu
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20 25 30

Gln Leu Leu Gln Leu Gln Gln Leu Gln Gln Ser Pro Pro Gln Ala
35 40 45

Pro Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro Gln
50 55 60

Gln Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu Asn
65 70 75 80

Gly Ser Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly Leu
85 90 95

Asp Gln Phe Ala Met Pro Pro Ala Thr Tyr Asp Thr Ala Gly Leu Thr
100 105 110

Met Pro Thr Ala Thr Leu Gly Asn Leu Arg Gly Tyr Gly Met Ala Ser
115 120 125

Pro Gly Leu Ala Ala Pro Ser Leu Thr Pro Pro Gln Leu Ala Thr Pro
130 135 140

Asn Leu Gln Gln Phe Phe Pro Gln Ala Thr Arg Gln Ser Leu Leu Gly
145 150 155 160

Pro Pro Pro Val Gly Val Pro Met Asn Pro Ser Gln Phe Asn Leu Ser
165 170 175

Gly Arg Asn Pro Gln Lys Gln Ala Arg Thr Ser Ser Ser Thr Thr Pro
180 185 190

Asn Arg Lys Asp Ser Ser Ser Gln Thr Met Pro Val Glu Asp Lys Ser
195 200 205

Asp Pro Pro Glu Gly Ser Glu Glu Ala Ala Glu Pro Arg Met Asp Thr
210 215 220

Pro Glu Asp Gln Asp Leu Pro Pro Cys Pro Glu Asp Ile Ala Lys Glu
225 230 235 240

Lys Arg Thr Pro Ala Pro Glu Pro Glu Pro Cys Glu Ala Ser Glu Leu
245 250 255

Pro Ala Lys Arg Leu Arg Ser Ser Glu Glu Pro Thr Glu Lys Glu Pro
260 265 270

Pro Gly Gln Leu Gln Val Lys Ala Gln Pro Gln Ala Arg Met Thr Val
275 280 285

Pro Lys Gln Thr Gln Thr Pro Asp Leu Leu Pro Glu Ala Leu Glu Ala
290 295 300

Gln Val Leu Pro Arg Phe Gln Pro Arg Val Leu Gln Val Gln Ala Gln
305 310 315 320

Val Gln Ser Gln Thr Gln Pro Arg Ile Pro Ser Thr Asp Thr Gln Val
325 330 335

Gln Pro Lys Leu Gln Lys Gln Ala Gln Thr Gln Thr Ser Pro Glu His
340 345 350

Leu Val Leu Gln Gln Lys Gln Val Gln Pro Gln Leu Gln Gln Glu Ala
355 360 365

Glu Pro Gln Lys Gln Val Gln Pro Gln Val Gln Pro Gln Ala His Ser
370 375 380

Gln Gly Pro Arg Gln Val Gln Leu Gln Gln Glu Ala Glu Pro Leu Lys
385 390 395 400

Gln Val Gln Pro Gln Val Gln Pro Gln Ala His Ser Gln Pro Pro Arg
405 410 415

Gln Val Gln Leu Gln Leu Gln Lys Gln Val Gln Thr Gln Thr Tyr Pro
420 425 430

Gln Val His Thr Gln Ala Gln Pro Ser Val Gln Pro Gln Glu His Pro
435 440 445

Pro Ala Gln Val Ser Val Gln Pro Pro Glu Gln Thr His Glu Gln Pro
450 455 460

His Thr Gln Pro Gln Val Ser Leu Leu Ala Pro Glu Gln Thr Pro Val
465 470 475 480

Val Val His Val Cys Gly Leu Glu Met Pro Pro Asp Ala Val Glu Ala
485 490 495

Gly Gly Gly Met Glu Lys Thr Leu Pro Glu Pro Val Gly Thr Gln Val
500 505 510

Ser Met Glu Glu Ile Gln Asn Glu Ser Ala Cys Gly Leu Asp Val Gly
515 520 525

Glu Cys Glu Asn Arg Ala Arg Glu Met Pro Gly Val Trp Gly Ala Gly
530 535 540

Gly Ser Leu Lys Val Thr Ile Leu Gln Ser Ser Asp Ser Arg Ala Phe
545 550 555 560

Ser Thr Val Pro Leu Thr Pro Val Pro Arg Pro Ser Asp Ser Val Ser
565 570 575

Ser Thr Pro Ala Ala Thr Ser Thr Pro Ser Lys Gln Ala Leu Gln Phe
580 585 590

Phe Cys Tyr Ile Cys Lys Ala Ser Cys Ser Ser Gln Gln Glu Phe Gln
595 600 605

Asp His Met Ser Glu Pro Gln His Gln Gln Arg Leu Gly Glu Ile Gln
610 615 620

His Met Ser Gln Ala Cys Leu Leu Ser Leu Leu Pro Val Pro Arg Asp
625 630 635 640

Val Leu Glu Thr Glu Asp Glu Glu Pro Pro Pro Arg Arg Trp Cys Asn
645 650 655

Thr Cys Gln Leu Tyr Tyr Met Gly Asp Leu Ile Gln His Arg Arg Thr
660 665 670

Gln Asp His Lys Ile Ala Lys Gln Ser Leu Arg Pro Phe Cys Thr Val
675 680 685

Cys Asn Arg Tyr Phe Lys Thr Pro Arg Lys Phe Val Glu His Val Lys
690 695 700

Ser Gln Gly His Lys Asp Lys Ala Lys Glu Leu Lys Ser Leu Glu Lys
705 710 715 720

Glu Ile Ala Gly Gln Asp Glu Asp His Phe Ile Thr Val Asp Ala Val
725 730 735

Gly Cys Phe Glu Gly Asp Glu Glu Glu Glu Asp Asp Glu Asp Glu
740 745 750

Glu Glu Ile Glu Val Arg Ser Arg Asp Ile Ser Arg Glu Glu Trp Lys
755 760 765

Gly Ser Glu Thr Tyr Ser Pro Asn Thr Ala Tyr Gly Val Asp Phe Leu
770 775 780

Val Pro Val Met Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His
785 790 795 800

Ser Asn Ser Gly Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe
805 810 815

Glu Asn Leu Gln Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr
820 825 830

Arg Pro Val Ser Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr
835 840 845

Ala Leu Phe Thr Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln
850 855 860

Asp Lys Thr Pro Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu
865 870 875 880

Pro Arg Arg Ser Thr Arg Leu Lys Thr
885

<210> 65

<211> 873

<212> PRT

<213> Homo sapiens

<400> 65

Met Phe Ser Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln Leu
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Gln Gln Leu Gln Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln Gln
20 25 30

Gln Leu Leu Gln Leu Gln Gln Leu Gln Ser Pro Pro Gln Ala
35 40 45

Pro Leu Pro Met Ala Val Ser Arg Gly Leu Pro Pro Gln Gln Pro Gln
50 55 60

Gln Pro Leu Leu Asn Leu Gln Gly Thr Asn Ser Ala Ser Leu Leu Asn
65 70 75 80

Gly Ser Met Leu Gln Arg Ala Leu Leu Leu Gln Gln Leu Gln Gly Asn
85 90 95

Leu Arg Gly Tyr Gly Met Ala Ser Pro Gly Leu Ala Ala Pro Ser Leu
100 105 110

Thr Pro Pro Gln Leu Ala Thr Pro Asn Leu Gln Gln Phe Phe Pro Gln
115 120 125

Ala Thr Arg Gln Ser Leu Leu Gly Pro Pro Pro Val Gly Val Pro Met
130 135 140

Asn Pro Ser Gln Phe Asn Leu Ser Gly Arg Asn Pro Gln Lys Gln Ala
145 150 155 160

Arg Thr Ser Ser Ser Thr Thr Pro Asn Arg Lys Asp Ser Ser Ser Gln
165 170 175

Thr Met Pro Val Glu Asp Lys Ser Asp Pro Pro Glu Gly Ser Glu Glu
180 185 190

Ala Ala Glu Pro Arg Met Asp Thr Pro Glu Asp Gln Asp Leu Pro Pro
195 200 205

Cys Pro Glu Asp Ile Ala Lys Glu Lys Arg Thr Pro Ala Pro Glu Pro
210 215 220

Glu Pro Cys Glu Ala Ser Glu Leu Pro Ala Lys Arg Leu Arg Ser Ser
225 230 235 240

Glu Glu Pro Thr Glu Lys Glu Pro Pro Gly Gln Leu Gln Val Lys Ala
245 250 255

Gln Pro Gln Ala Arg Met Thr Val Pro Lys Gln Thr Gln Thr Pro Asp
260 265 270

Leu Leu Pro Glu Ala Leu Glu Ala Gln Val Leu Pro Arg Phe Gln Pro
275 280 285

Arg Val Leu Gln Val Gln Ala Gln Val Gln Ser Gln Thr Gln Pro Arg
290 295 300

Ile Pro Ser Thr Asp Thr Gln Val Gln Pro Lys Leu Gln Lys Gln Ala
305 310 315 320

Gln Thr Gln Thr Ser Pro Glu His Leu Val Leu Gln Gln Lys Gln Val
325 330 335

Gln Pro Gln Leu Gln Glu Ala Glu Pro Gln Lys Gln Val Gln Pro
340 345 350

Gln Val Gln Pro Gln Ala His Ser Gln Gly Pro Arg Gln Val Gln Leu
355 360 365

Gln Gln Glu Ala Glu Pro Leu Lys Gln Val Gln Pro Gln Val Gln Pro
370 375 380

Gln Ala His Ser Gln Pro Pro Arg Gln Val Gln Leu Gln Leu Gln Lys
385 390 395 400

Gln Val Gln Thr Gln Thr Tyr Pro Gln Val His Thr Gln Ala Gln Pro
405 410 415

Ser Val Gln Pro Gln Glu His Pro Pro Ala Gln Val Ser Val Gln Pro
420 425 430

Pro Glu Gln Thr His Glu Gln Pro His Thr Gln Pro Gln Val Ser Leu
435 440 445

Leu Ala Pro Glu Gln Thr Pro Val Val Val His Val Cys Gly Leu Glu
450 455 460

Met Pro Pro Asp Ala Val Glu Ala Gly Gly Gly Met Glu Lys Thr Leu
465 470 475 480

Pro Glu Pro Val Gly Thr Gln Val Ser Met Glu Glu Ile Gln Asn Glu
485 490 495

Ser Ala Cys Gly Leu Asp Val Gly Glu Cys Glu Asn Arg Ala Arg Glu
500 505 510

Met Pro Gly Val Trp Gly Ala Gly Ser Leu Lys Val Thr Ile Leu
515 520 525

Gln Ser Ser Asp Ser Arg Ala Phe Ser Thr Val Pro Leu Thr Pro Val
530 535 540

Pro Arg Pro Ser Asp Ser Val Ser Ser Thr Pro Ala Ala Thr Ser Thr
545 550 555 560

Pro Ser Lys Gln Ala Leu Gln Phe Phe Cys Tyr Ile Cys Lys Ala Ser
565 570 575

Cys Ser Ser Gln Gln Glu Phe Gln Asp His Met Ser Gln Pro Gln His
580 585 590

Gln Gln Arg Leu Gly Glu Ile Gln His Met Ser Gln Ala Cys Leu Leu
595 600 605

Ser Leu Leu Pro Val Pro Arg Asp Val Leu Glu Thr Glu Asp Glu Glu
610 615 620

Pro Pro Pro Arg Arg Trp Cys Asn Thr Cys Gln Leu Tyr Tyr Met Gly
625 630 635 640

Asp Leu Ile Gln His Arg Arg Thr Gln Asp His Lys Ile Ala Lys Gln
645 650 655

Ser Leu Arg Pro Phe Cys Thr Val Cys Asn Arg Tyr Phe Lys Thr Pro
660 665 670

Arg Lys Phe Val Glu His Val Lys Ser Gln Gly His Lys Asp Lys Ala
675 680 685

Lys Glu Leu Lys Ser Leu Glu Lys Glu Ile Ala Gly Gln Asp Glu Asp
690 695 700

His Phe Ile Thr Val Asp Ala Val Gly Cys Phe Glu Gly Asp Glu Glu
705 710 715 720

Glu Glu Glu Asp Asp Glu Asp Glu Glu Ile Glu Val Glu Glu Glu
725 730 735

Leu Cys Lys Gln Val Arg Ser Arg Asp Ile Ser Arg Glu Glu Trp Lys
740 745 750

Gly Ser Glu Thr Tyr Ser Pro Asn Thr Ala Tyr Gly Val Asp Phe Leu
755 760 765

Val Pro Val Met Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His
770 775 780

Ser Asn Ser Gly Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe
785 790 795 800

Glu Asn Leu Gln Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr
805 810 815

Arg Pro Val Ser Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr
820 825 830

Ala Leu Phe Thr Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln
835 840 845

Asp Lys Thr Pro Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu
850 855 860

Pro Arg Arg Ser Thr Arg Leu Lys Thr
865 870

<210> 66

<211> 2821

<212> DNA

<213> Homo sapiens

<400> 66
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cccatggctg tcagccgggg gctcccccg cagcagccac agcagccgt tctgaatctc 180
cagggcacca actcagcctc ctcctcaac ggctccatgc tgcagagagc tttgctttta 240
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cagacacaga	caccagacct	gctgcctgag	gccctggaag	cccaagtgt	gccacgattc	900
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a 2821

<210> 67

<211> 2850

<212> DNA

<213> Homo sapiens

<400> 67
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aacgcactcc agcacctgag cctgagcctt gtgaggcgtc cgagctgcca gcaaagagat 780
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gctccagcca gcaggagttc caggaccaca tgtcggagcc tcagcaccag cagcggctag	1860
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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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